Public Works (1897) Department.

G.O., No. 314-5R

DATED 30th April 1897

[Despatch Abstract.]

Madras Railway

~~Ordered that~~ Six copies of the reports by Heads of Depts of the — for the half year ending 31st Decr 1896 ordered to be forwarded to the Govt. of India

— do —

Forwarding 6 copies of the reports by Heads of Depts of the — for the half year ending 31st Decr 1896.

24.5.97

P.W. 25.
5,000—30-11-96.

Indexed. 5/5/97

No. 314. R. Dated 30/4/97.

Mic copy 27.4.97

BACK PAPERS.

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

FURTHER PAPERS.

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

MADRAS RAILWAY.

REPORTS BY HEADS OF DEPARTMENTS FOR THE HALF-YEAR ENDING 31ST DECEMBER 1896.

No. 314. R. Dated 30/4/97.

MADRAS RAILWAY COMPANY,

MADRAS, 1st *April* 1897.

No. 2303.

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 31st December 1896. The detailed reports by the Heads of Departments were sent to you on the undermentioned dates :—

The Ag. Chief Engineer	25th March 1897.	The Ag. Traffic Manager	25th March 1897.
„ Chief Auditor	11th „ „	„ Telegraph Engineer	1st April „
„ Locomotive Superintendent	25th „ „	„ Medical Officer	1st „ „

2. The **Financial** results of the last two 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, June ...	57,07,036	26,82,135	30,24,901	47·00	261·62	2·51
„ December ...	55,01,371	26,47,541	28,53,830	48·13	252·93	2·36
Total ...	112,08,407	53,29,676	58,78,731	47·56	257·27	4·87
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
Total ...	108,80,251	54,94,961	53,85,290	50·50	249·17	4·46

The decrease in gross earnings, as compared with the earnings for the corresponding half-year of 1895, amounts to Rs. 89,520, and the increase in working expenses to Rs. 1,03,375. The net revenue shows a decrease of Rs. 1,92,895, equivalent to 6·76 per cent.

3. During the half-year 1,243,216 train miles were run as against 1,278,459 during the corresponding period. 4,818,117 passengers and 575,626 tons of goods were carried as against 4,428,045 passengers and 553,628 tons of goods.

4. The result of the half-year's working is a dividend at the rate of £4-8-2 per cent. per annum. Loss by exchange amounts for the half-year to Rs. 1,81,938, or Rs. 7,031 less than during the corresponding half-year.

5. The number of **passengers** (excluding troops and police) carried in each class and the gross receipts therefrom, during the second 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.
31st December 1893	9,681	78,672	29,581	82,643	4,675,724	14,57,774	4,714,986	16,19,089
Do. 1894	9,818	85,723	35,475	93,833	5,048,748	15,78,600	5,094,041	17,58,156
Do. 1895	11,538	1,07,505	47,034	1,06,013	4,327,774	17,36,777	4,386,346	19,50,295
Do. 1896	12,273	92,263	42,830	1,01,940	4,727,779	16,99,951	4,782,882	18,94,154

There is an increase in the number of first class passengers carried, as compared with the corresponding half-year, of 735, or over 6 per cent., but in the money earned there is a decrease of Rs. 15,242, or 14 per cent.

There is a decrease in the number of second class passengers carried of 4,204, or nearly 9 per cent., and in the money earned of Rs. 4,073, or about 4 per cent.

There is an increase in the number of third class passengers carried of 400,005, or over 9 per cent., but in the money earned there is a decrease of Rs. 36,826, or about 2 per cent. The large increase in numbers is most satisfactory. In the opinion of the Chief Auditor and the Acting Traffic Manager, the decrease in receipts is due to the reduction made in the fares for short distances early in 1896, and it would appear that a further considerable addition to the number of passengers will be necessary to recoup the Company for the loss sustained by the reduced fares, and it is hoped that this result will be obtained during the current half-year.

There is a decrease in the receipts from parcels, which is attributed to a falling off of the traffic in flowers, fruits and betel-nuts on the South-West Line, and indigo on the North-West Line, owing to the slight rainfall in some districts.

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.
31st December 1893 ...	30,42,424	38,947	429,261	30,03,477	7·05
Do. 1894 ..	28,94,039	36,643	408,546	28,57,396	7·06
Do. 1895 ...	29,63,744	39,010	430,313	29,24,734	6·87
Do. 1896 ...	29,67,007	74,087	441,688	28,92,920	6·55

The total tonnage carried over the Railway during the past half-year, exclusive of Railway materials for construction and revenue stores, was 456,924 tons as against 431,436 tons during the corresponding period, while the receipts were Rs. 29,67,007 and Rs. 29,63,744, respectively.

The grain traffic shows an increase of 16,000 tons and Rs. 23,605. There were considerable fluctuations in this traffic during the half-year as the Acting Traffic Manager mentions in para. 26 of his report.

A much larger quantity of coal was carried for the Kolar Gold Mines, and there is every probability of a still heavier traffic as the old Companies are steadily adding to their machinery for dealing with an increased outturn, while new Companies have commenced working.

The other important increases are in hides and skins Rs. 24,900, and railway plant and rolling stock Rs. 29,549. The latter is an abnormal increase due chiefly to the despatch of rolling stock and plant for the Bezwada-Madras Railway now under construction.

The principal decreases in goods traffic occur under dyes and tans, oil seeds, provisions, salt and timber. The steady decrease in the salt traffic has been noticed in successive reports. Madras salt continues to be displaced by salt from Bombay carried from Calicut and other stations on the West Coast. The falling off in timber is due to the requirements of the Mining Companies at Kolar having been considerably less than in the corresponding half-year of 1895.

Owing to heavy floods towards the end of November, the North-West Line was breached at the 95th and 107th miles and through booking was suspended from the 29th of that month to the 5th December. The rainfall had been heavy and continuous for several days prior to the breaches occurring, and the result was a very serious reduction in our traffic receipts for the last two months of the year.

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, June	566	24	590
,, December... ...	540	35	575
1896, June	544	54	598
,, December... ...	556	79	635

The ordinary outlay shows an excess of Rs. 12 per mile as compared with the preceding half-year and the extraordinary expenditure an excess of Rs. 25 per mile. Compared with the corresponding period of 1895, the increased expenditure is equivalent to Rs. 16 and Rs. 44 per mile, respectively. Details of the extraordinary expenditure are given in para. 8 of the Acting Chief Engineer's report, and it will be observed that there is an abnormal charge of Rs. 10,662 for depreciation of new permanent-way and girder materials, and Rs. 10,573 for repairing the damage caused by the heavy floods in November last. The expenditure chargeable to Revenue on sanctioned works on the North-West Line, amounting to Rs. 31,620, includes the new engine station at Nandalur and the Engineering Workshops at Arkonam.

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.		
			Rs.	A.	P.
	No.	Rs.			
1895, June	1,498,614	13,24,147	0	14	1·64
,, 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

Compared with the corresponding period of 1895, the expenses of the Locomotive Department may be stated as follows :—

Locomotive	Running	increase	Rs. 28,151
,,	Repairs and renewals	,,	,, 555
Carriage and Wagon	Running	,,	,, 1,320
,,	Repairs and renewals	,,	,, 20,254

The increase in the Locomotive running expenses is due mainly to the heavier consumption of coal and firewood. The Locomotive Superintendent explains in paras. 8—10 of his report that it is necessitated by the increased train loads which have now to be hauled.

During the half-year, 2,956 carriages were repaired and 70 vehicles were renewed as against 2,676 and 61 respectively during the corresponding half-year. The increase in the repairs is due greatly to an abnormal outlay incurred on account of the vehicles damaged in the accidents at Lakkiti, Mullanur and Mallapuram.

The question of our coal supplies will require to be very carefully considered in the course of a few months. The existing contract will expire in October next and we have arranged to obtain trial shipments of certain Bengal coals that we may be in a position to determine whether they compare favourably with the Singareni coal both as regards quality and price.

The North-West line mail trains have been fitted with the vacuum brake and the mail and passenger trains on the Bangalore branch will also be fitted at an early date. All the most important trains now running have been provided with gas; and the local and branch trains will, it is hoped, be shortly provided in a similar manner in the course of a few weeks.

9. The **Electric telegraph** wires, block, needle and Morse instruments, electric starting semaphores and intercommunication in trains were maintained satisfactorily during the half-year. One engine and 109 vehicles were fitted with electrical intercommunication appliances during the half-year, and the fittings on 11 engines and 19 vehicles were renewed.

10. The **Medical Officer** reports that there was an increase of 300 in the number of employés to whom it was found necessary to grant sick certificates. There were in all during the half-year 5,962 cases of sickness dealt with against a total of 5,674 cases for the corresponding half-year. There were 17 cases of cholera, of which 6 were fatal, and 6 of small-pox. There were in all 26 deaths reported by the Apothecaries.

11. **Railway Schools** were maintained at nine of the important stations on the line. The total number of children on the register at 31st December was 413, and the average attendance 325. The cost to the Company of maintaining these schools during the period under review was Rs. 6,272.

12. The Company's contribution to the **Provident Institution** amounted for the half-year to Rs. 21,166-0-9, and this sum will be found entered in Abstract G of the Capital and Revenue Accounts. The total amount at credit of the institution at the end of the year was Rs. 7,40,699-8-1.

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

Mr. Ross Chisholm, Assistant Engineer, returned from furlough leave on the 5th July 1896.

,, F. A Pawley, Assistant Engineer, proceeded on sixteen months' furlough leave on the 29th October 1896.

,, E. E. Lefébure, Assistant Locomotive Superintendent, resigned the Company's service on the 1st August 1896.

Boiler Maker A. C. Scriven and Carriage Painter Frederick Corney arrived here and reported themselves for duty on the 3rd August 1896.

Mr. P. G. Porteous was appointed Assistant Locomotive Superintendent on probation on the 1st December 1896.

,, F. W. Read, Traffic Manager, proceeded on sixteen months' furlough leave on the 24th July 1896.

,, E. R. Ross, Assistant Traffic Manager, proceeded on six months' furlough leave on the 13th November 1896.

,, T. H. Woodliffe, Fourth Assistant Auditor, left the Company's service on the 26th December 1896.

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

Ag. Agent and Manager.

No. $\frac{654}{326}$.

MADRAS RAILWAY VOLUNTEERS.

PERAMBUR WORKS,
Madras, 30*th March* 1897.

FROM

LIEUT-COL. C. E. PHIPPS,
COMMANDANT, MADRAS RAILWAY VOLUNTEERS.

TO

THE ACTING AGENT AND MANAGER,
MADRAS RAILWAY COMPANY.

SIR,

In further reply to your letter No. $\frac{9745}{3149}$ of the 22nd instant, I have the honor to forward herewith the usual statements regarding the working and progress of the Madras Railway Volunteers for the year ending 31st current, together with the following remarks, for the information of yourself and the Board of Directors.

II. The strength, efficiency, etc., of the Regiment, as compared with the previous year, are set forth in the following table :—

	1895-96.	1896-97.
Greatest strength during the year	1,005	1,000
Strength at close of year	950	983
No. of Extra Efficients	512	450
„ „ Efficients	400	318
„ „ Non-Efficients	44	215
Percentage of Extra Efficients and Efficients to strength ...	95	78
No. on rolls who have passed proficiency test	137	140

The items in the above which chiefly call for remarks are the large and very regrettable increase in the number of non-efficients, and the consequent decrease in the number and percentage of extra efficients and efficients. In the 215 non-efficients shown are included the whole of the Jalarpet Company (79 strong), who have been unable to fire their annual course of musketry owing to the range at Jalarpet having been condemned by the Deputy Assistant Adjutant General for Musketry, and to the unavoidable delay (unavoidable at least so far as the Corps is concerned) in acquiring from the civil authorities a suitable site for a new range. Such a site has been for some time demarcated, and I am only awaiting the final action of the civil authorities in the matter to erect a stop-butt and platform, and get the range in readiness for use. I hope this may be done before the beginning of the next drill season, and I further hope that, upon the company being exercised on the new range, and the circumstances being duly represented to Government, we shall be permitted to return nearly the whole of the company as efficient or extra efficient, and to draw their grant accordingly.

If the strength of the Jalarpet Company be deducted from the number of non-efficients, there still remain 136, as against 44 last year. A number of causes have contributed to this unfortunate result, among which I am inclined to regard the following as the chief :—

(*a*) The absence of the Adjutant on sick leave during the greater part of the drill season, *i.e.*, up to the 20th December last, his place being taken for the most part by an Officer of the Corps, whose Railway duties did not admit of his devoting the necessary time to the work. The work requires during the drill season the continuous and undivided efforts of an Adjutant.

(*b*) The fact that no Camp of Exercise was participated in by Regiment this year. These camps, in addition to their many other good points, afford many men the opportunity of putting in the greater portion of their qualifying drills within a few days.

It is hoped however, that neither of the above causes will operate against the efficiency of the Regiment during the coming season, and in any case no effort will be spared to attain results more in accordance with those of past years.

III. The Regiment has attended 4 Brigade parades during the year on which it has maintained its reputation for smartness and steadiness. The last was on the 20th instant, when the General Officer Commanding the District, in the presence of all the Infantry Corps in Garrison, presented 19 members of the Corps with the medal for long service. In doing so, General Cummins, D. S. O., took occasion to make some remarks which were alike gratifying to the recipients of the decorations, and complimentary and encouraging to the entire Regiment.

IV. The parade ground and armouries have been maintained in suitable condition, a new and convenient armoury having been finished for No. 6 Company at Rayapuram during the year. The magazine at Perambur has been completed and is in use.

V. The Regimental figure of merit in musketry has improved from 48 last year to 50, which is satisfactory. The figure would have been higher still had there been fewer non-exercised men. I am of opinion that the Rifle clubs formed last year have worked successfully, and have conduced to an improvement in shooting.

The "Moss Medal" has again been taken by Lieutenant Heaton with a score of 105 points, and this Officer is again, for the third year in succession, the best shot in the Regiment having made 255 points in the Annual Course.

The Chief Engineer's Shield has been won by No. 4 Company with 49 points or 61·25 per cent. of hits, a very excellent score considering the conditions of the competition.

VI. I regret to record the death of Sergeant-Instructor Earwaker on the 29th June 1896. He was a very competent Instructor, and was both hardworking and popular. His place was filled by the appointment of Sergeant-Instructor FitzGerald from the Royal Irish Fusiliers. Sergeant-Instructor Wooley was discharged to pension on the 26th February 1897 after serving with the Regiment for 12 years, and his place was filled by the transfer of Sergeant-Instructor Mather from the Madras Volunteer Guards. There have been no other changes in the permanent staff during the year.

VII. The band is up to its authorized strength and is in a satisfactory state of efficiency. Several new instruments, the need of which was much felt, have been procured from England during the year and their acquisition has effected a marked improvement in the playing of the band.

VIII. Enclosed with this letter are :—

1. Statement re : Officers.
2. do. Non-Efficient by Departments.
3. Battalion Statements.

IX. In conclusion I must again express my acknowledgment of the Heads of Departments for assistance rendered me : assistance without which it will always be impossible to maintain the Regiment in that state of efficiency in which I am sure all connected with the Railway Company's service would desire to see it.

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

C. E. PHIPPS, Lieut.-Colonel,
Commandant, Madras Railway Volunteers.

MADRAS RAILWAY VOLUNTEERS.

Roll of Officers showing Efficiency on 31st March 1897.

Rank and Name.		Musketry. Recruit.	Musketry. Trained.	Musketry. Revolver.	No. of Drills.	Ex. Efficient.	Efficient.	Non-Efficient.	Remarks.
Lt.-Colonel.	Phipps, C. E.	...	...	37	28	1	...	...	
Major.	Taylor, J. L.	...	...	...	14	1	...	...	
,,	Lightfoot, J.	...	...	...	...	...	...	1	On leave.
,,	Upcott, F. R.	...	...	...	...	...	...	1	do.
Captain.	Thompson, H. J.	...	...	30	1	...	...	1	
,,	Johnson, D. R.	...	...	...	9	...	1	...	
,,	Chisholm, R.	...	105	...	19	1	...	...	
,,	Ewing, J. M.	...	...	34	9	1	...	...	
,,	Pigott, R. E.	...	...	40	11	1	...	...	
,,	Wake, T.	...	...	...	11	...	1	...	
,,	Pilkington, A	...	...	42	10	1	...	...	
,,	Pawly, F. A.	...	...	...	...	...	...	1	On leave.
,,	Duncan, J. B.	...	...	108	...	9	1	...	...
,,	Greenall, R.	...	...	68	...	9	...	1	...
,,	Corben, A.	...	...	...	...	12	...	1	...
,,	Gompertz, H. J. C.	...	...	98	...	12	1	...	...
,,	Chamier, W.	...	...	...	...	10	...	1	...
Lieutenant.	Ward, R. B.	...	...	...	...	...	...	1	do.
,,	Heaton, W.	...	...	142	...	9	1	...	...
,,	Barefoot, W.	...	...	...	...	...	...	1	do.
,,	Ross, E. R.	...	...	...	...	...	...	1	do.
,,	Roach, J.	...	...	40	10	1	...	...	
,,	Stanley, H. J.	...	...	34	9	1	...	...	
,,	Currie, J.	...	...	...	14	...	1	...	
,,	Driver, E. C. V.	...	...	...	...	...	...	1	do.
,,	Punter, J.	...	...	41	12	1	...	...	
,,	Wright, S.	...	...	...	31	1	...	...	
,,	Bamford, R. G.	...	...	36	13	1	...	...	
,,	Davies, J. T.	...	...	134	...	34	1	...	...
2nd Lieutenant.	Ward, W.	...	...	123	...	12	1	...	...
,,	Walters, F. J.	...	...	...	44	9	1	...	...
,,	Gale, A. C.	...	...	121	...	42	1	...	...
,,	Porteous, P. G.	...	...	...	42	9	1	...	...

PERAMBUR,
31*st March* 1897.

C. E. PHIPPS, Lt.-Colonel,
Commandant, M. R. Vols.

MADRAS RAILWAY VOLUNTEERS.

Distribution by Departments.

Qualification.	Locomotive.	Traffic.	Audit.	Stores.	Engineer.	Medical.	Non-Employ.	Total.
Efficient...	416	215	7	1	53	2	74	768
Non Efficient	*a* 52	*b* 115	4	1	*c* 23	1	19	215
Total	468	330	11	2	76	3	93	983

a Includes 30 at Jalarpet who could not fire.
b ,, 35 ,, ,, ,, ,, ,,
c ,, 4 Telegraph Engineer's.

PERAMBUR,
31*st March*, 1897.

C. E. PHIPPS, Lieut.-Col.,
Commandant, M. R. Vols.

1 to E. Dis. C. No. 1591 of 1897
348 8-4-97
Am

Statement showing the enrolled strength and the Number of efficients in each Railway Volunteer Corps on the 31st March 1897.

Corps.	Enrolled strength.*	Efficients. Officers.	Efficients. Non-Commissioned Officers.	Efficients. Volunteers.	Efficients. Total.	Non-Efficients.	Sergeant-Instructors 1st and 2nd class.	Drill Instructors.	Head-quarters.	Remarks.
Madras Railway Volunteers.										
Staff	5	3	...	..	3	2	4	2	Perambur Works.	
No. 1 Company	68	3	11	53	67	1	...	...		
„ 2 „	62	3	7	52	62	...	...	...		
„ 3 „	65	1	7	56	64	1	...	...		
„ 4 „	67	3	7	56	66	1	...	...		
„ 5 „	115	3	12	76	91	24	...	...		
„ 6 „	81	2	5	50	57	24	...	...		
Cadet Head Quarters ...	62	...	5	57	62	...	...	...		
Arkonam	59	1	6	36	43	16	1	...		
Renigunta	29	...	4	19	23	6	1	...		
Cuddapah	14	1	1	9	11	3	...	...		
Gooty	66	3	7	39	49	17	1	...		
Raichur	15	1	3	10	14	1	...	...		
Bangalore	57	...	7	40	47	10	...	...		
Jalarpet	76	...	...	5	5	71	1	...		
„ Cadets	8	...	...	...	...	8	...	...		
Gooty „	1	...	...	1	1	...	...	...		
Salem „	28	1	3	19	23	5	...	...		
Podanur	78	1	10	42	53	25	1	...		
„ Cadets	12	...	...	12	12	...	...	...		
Calicut	15	...	3	12	15	..	...	...		
Total...	983	26	98	644	768	215	9	2		

PERAMBUR,
31st *March* 1897.

C. E. PHIPPS, Lieut.-Colonel,
Commandant, Madras Railway Volunteers.

L. A. PRESS.—1897.

No.

MADRAS RAILWAY COMPANY,
CHIEF ENGINEER'S OFFICE,
MADRAS, 18th *March* 1897.

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 the 31st of December 1896 and regret being unable to send it in sooner as the figures connected with cost of maintenance for the last half-year have only just been received from the Audit Office.

The inspection of the North-West Line was made on 3rd February and following days ending with 6th February 1897.

The Madras Terminal Stations and the Ennur Branch were inspected on the 1st February; while seven days were spent inspecting the South-West Line and its branches, commencing with 15th January and ending on 21st January.

1. **Earth-work and Fencing.**—Earthwork and Fencing are generally in good order and well maintained. Drains will need to be inserted in the up and down line banks between 2 miles, and 3 miles 5 Telegraph Posts, to prevent the recurrence of slips similar to those which took place on the 21st November 1896. An estimate for these is being prepared for early sanction.

The several breaches made between the 64th and 108th miles by the Cyclonic rain which fell on the night of the 27th November 1896 have been repaired and will be fully described later on.

Fencing.—The vegetable fencing is being renewed and repaired where necessary, and such portions as are in unsuitable soil are being replaced gradually by wire fence.

2. **Stations.**—All station yards, buildings and staff quarters are neatly kept and well maintained.

In consequence of the proposed introduction of Bogie Carriages the coping of 65 station platforms on curves will need to be set back flush with the platform wall, and this is now being done.

Perambur Church was finished on the 6th November 1896 and consecrated by the Bishop of Madras on the 5th October 1896.

Very satisfactory progress has been made with the numerous schedule works on the several districts especially with the enlargement of Podanur Station. The progress of those at Nundalur Station has however been much retarded by cholera, which has made it difficult to get the requisite labour.

3. **Bridges.**—These are all well maintained and stops were made at the Palar, Thootha, Kadalundi, and Ferok bridges, on the South-West Line, and at the Chittravati, Tungabuddra, and many others on the North-West Line.

The work of strengthening weak girders of 50 feet span was proceeded with, five spans having been done during the half-year (as shown in the following table), making a total of 13 spans done to date, and leaving 4 spans still to be finished.

Bridge No.	Mileage.	Description.	Remarks.
R. 4.	$\frac{1}{14}$ Ms. S. W. L.	1-50 ft. Cochrane's Canal.	In progress.
84	$\frac{175}{5}$,, B. Branch	1-50 ft.	Not begun.
82	$\frac{175}{16}$,, ,,	2-50 ft.	Do.
129	$\frac{70}{1-2}$ Ms. N. W. L.	1-50 ft.	Completed previously.
183	$\frac{79}{13-14}$,, N. W. L.	1-50 ft.	Do. do.
232	$\frac{95}{13-14}$,, N. W. L.	1-50 ft.	Do. do.
251	$\frac{107}{10-11}$,, N. W. L.	5-40 ft. (Skew)	Do. do.
598	$\frac{179}{1}$,, N. W. L.	5-50 ft.	Completed in August 1896.

4. Water-supply.—Plans and estimates have been prepared and sanctioned for Locomotive water supplies at Jalarpet, Whitefield, and Nundalur, and the works in connection with these will be commenced at once, when the former are finished and in use it is hoped that the Bangalore Branch will be well provided with water.

5. Permanent-way.—The road throughout, both the North-West and South-West Lines, is well maintained and is generally in very good running order.

The Ennur Branch being comparatively new is not smooth when run over fast.

A train was derailed at $\frac{144}{8}$ miles on the Bangalore Branch on the night of the 23rd of July 1896 owing to the shearing of a portion of the top flange of a 20 ft. 75 lb iron rail, due to a hidden flaw; this rail is believed to have been 31 years in the line, and pieces cut from the flanges when tested gave very good results, and showed that the iron in the rail was of high quality. Out of an approximate length of 934 miles of iron rails originally laid, made up as follows 84 lb. 71 miles, 75 lb 526 miles, 65 lb 337 miles, only five cases of fracture in the main line are known to have taken place. The present average age of these rails is as follows:—

84 lb	Iron Rails average age	...	28·15 years.
75	Do.	...	25·19 ,,
65	Do.	...	27·42 ,,

while many of each sort are very much older.

That these rails should have lasted so long and worn so well shows that they were of high quality.

A very thorough examination of the rails in the line has been made by the District Engineers and their Assistants, so as to satisfy themselves that all rails in the road are in good working condition.

During the half-year 26·62 miles of iron rails, of which 7·57 miles were worn out, were replaced by—

4,876	Bull-headed 30 feet Steel Rails	= 13·85 miles.
2,442	2nd hand 20 feet Double-headed 75 lb Steel Rails ...	= 4·65 ,,
4,290	2nd hand Double-headed 20 feet Iron Rails ...	= 8·12 ,,
11,608		26·62 miles.

As compared with 17·30 Miles in the previous half-year.

The following summary of the various lengths and descriptions of rails in the line at the end of the half-year as shown graphically in Diagram No. 1 may be interesting—

Different descriptions of rails on the Main Line at the end of the half-year 31*st December* 1896—

	Miles.
84 lbs. Iron Rails	30·81
75 lbs. ,, ,, ...	319·18
65 lbs. ,, ,, ...	132·31
30 ft. Bull-headed Steel Rails 76 lbs.	54·07
30 ft. Double-headed Steel Rails 75 lbs.	32·38
20 ft. and other Double-headed Steel Rails 75 lbs.	307·23
Flat-footed Steel on Bridges 75 lbs.	5·65
Total ...	881·63

Kolar Gold Fields Railway.

75 lbs. Iron Rails	7·73
75 lbs. Double-headed Steel Rails 20 ft. and others	2·27
Total ...	10·00

6. Pot-sleepers.—The total number now laid is estimated at 3,270,524, of which 5,616 were found cracked or broken and renewed during the half-year, or ·172 per cent. as against 4,750 or ·145 per cent. in the previous half-year.

The renewals of defective rails and pots for the past 29 years are shown graphically in diagram No. 2.

7. New Type Fish-plates.—The following table shows the total number and miles of rails fitted with these to the end of the half-year, as well as those inserted during the half-year, and to the end of the preceding one:—

—	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 30th June 1896.	40·22	28,314	254·00	245,315	294·22	273,629
Done during the half-year ending 31st Dec. 1896 ...	13·85	9,750	3·07	3,244	16·92	12,994
Total done up to 31st Dec. 1896	54·07	38,064	257·07	248,559	311·14	286,623

116·42 miles of 75 lb. double-headed steel rails are still fished with old type fish-plates as under:—

Total length of double-headed and bull-headed steel rails including sidings.	Length already fished with new type fish plates.	Length still to be fished.
Miles.	Miles.	Miles.
427·56	311·14	116·42

8. **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 31st December 1895.

	Rs.	A.	P.
Total cost of Maintenance including Sidings	574	10	11
Extra expenditure	34	8	3
Ordinary expenditure ...	540	2	8

Half-year ending 30th June 1896.

	Rs.	A.	P.
Total cost of Maintenance includiug Sidings	598	6	8
Extra expenditure	54	5	2
Ordinary expenditure ...	544	1	6

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

	Rs.	A.	P.	Rs.	A.	P.
Total cost of Maintenance during the half-year ended 31st December 1895			...	7,73,798	2	11
Less Value of old rails and other items taken into stock ...Rs.	1,80,956	3	1			
Less Cost of working Kolar Gold Fields Railway ... ... „	9,637	1	5			
Less Sum chargeable to Fire Insurance Fund ... ... „	105	9	9			
				1,90,698	14	3
				5,83,099	4	8

Cost of ordinary expenditure per mile including Kolar Gold Fields Railway, &c. ... ... Rs. $\frac{5,57,236\text{-}1\text{-}6}{1,031\frac{5}{8}}$ = 540 2 8

The details of extraordinary expenditure for the half-year ended 31st December 1895 are as follows :—

		Rs.	A.	P.	Rs.	A.	P.
S. W. Line.	Covering dusty portion of the line with broken stone	15,792	11	3			
	Strengthening Weak Girders ...	4,491	13	6			
					20,284	8	9
N. W. Line.	Covering dusty portion of the line with broken stone	5,616	10	6			
	Strengthening Weak Girders ...	9,704	11	1			
					15,321	5	7
					35,605	14	4

Cost of extra expenditure per mile ... ... Rs. $\frac{35,605\text{-}14\text{-}4}{1,031\frac{5}{8}}$ = 34 8 3

	Rs.	A.	P.	Rs.	A.	P.
Total cost of Maintenance during the half-year ended 31st December 1896				8,31,286	9	7
Less Value of old rails and other items taken into stock ...Rs.	1,72,858	11	0			
Less Cost of working Kolar Gold Fields Railway ... ... „	12,885	1	9			
				1,85,743	12	9
				6,45,542	12	10

Cost of ordinary expenditure per mile including Kolar Gold Fields Railway, &c. ... ... Rs. $\frac{5,76,410\text{-}11\text{-}3}{1,036}$ = 556 6 1

The details of extraordinary expenditure for the half-year ended 31st December 1896 are as follows :—

		Rs.	A.	P.	Rs.	A.	P.
S. W. Line.	Covering dusty portion of the line with broken stone ... ... Rs.	5,793	1	4			
	Revenue portion of sanctioned works. „	5,980	13	2			
	Depreciation of New Permanent Way Girder materials ... ... „	10,662	0	0			
	Repairing damages done to Way, Works and Stations by heavy rain and storm of 8th and 24th September 1896 ... ... „	765	6	10			
	Arcot-Ranipet Survey ... ... „	1,633	0	1			
					24,834	5	5
N. W. Line.	Covering dusty portion of the line with broken stone ... ... „	14,988	9	8			
	Revenue portion of sanctioned works. „	31,620	8	4			
	Repairing damages done to Way and Works by floods of 27th and 28th November 1896 ... ... „	10,573	11	11			
					57,182	13	11
					82,017	3	4

Cost of extra expenditure per mile ... ... Rs. $\frac{82,017\text{-}3\text{-}4}{1036}$ = 79 2 8

The total expenditure for the past half-year exceeds that of the previous half-year by Rs. 39,565 or Rs. 38 per mile, chiefly owing to extra charges of Rs. 25,000, for "Loss by Exchange" and Rs. 5,947 for "Carriage of Revenue Stores,"—while the extraordinary expenditure only is Rs. 25,930, or Rs. 25 per mile in excess of that of the previous half-year chiefly due to the following causes :—

	Rs.	A.	P.
(1) Writing off depreciation on New Permanent Way Girder materials	10,662	0	0
(2) Repairing damages done to Way and Works by heavy storm and floods of 8th and 24th September and 27th and 28th November 1896	11,339	0	0
	22,001	0	0

Diagram No. 3 shows clearly the total cost per mile per half-year for maintenance for the past 37 half-years, sub-divided into ordinary, and extraordinary.

It may be well to point out that the number of Stations, Buildings, and Staff Quarters have increased greatly in the past 20 years, having more than doubled in that period, as has also the number of trains run, and the tonnage carried as shown below ; this of course necessarily increases the cost of maintenance per mile ; in addition to which the renewals of rails must increase more rapidly with increase of age and the heavier tonnage they now carry :—

STATEMENT SHOWING THE NUMBER OF STATIONS ON THE LINE.

Years.	1st Class.	2nd Class.	3rd Class.	4th Class.	5th Class.	Total.
1876	18	12	22	35	...	87
1886	21	15	15	43	24	118
1895	21	14	14	26	75	150

STATEMENT SHOWING THE NUMBER OF STATION BUILDINGS AND STAFF QUARTERS.

Departments.	Station Buildings.			Staff Quarters.		
	1876.	1886.	1896.	1876.	1886.	1896.
Engineering	22	25	30	47	44	72
Locomotive	142	143	130	185	233	306
Traffic	189	236	328	280	408	973
Telegraph	3	2	2	9	10	11
Medical	2	4	5	21	22	73
General	35	41	41	13	16	42
Total ...	393	451	536	555	733	1,477

Gross Total 1876	948
,, 1886	1,184
,, 1896	2,013

STATEMENT SHOWING TONNAGE CARRIED.

Years.	Tons.
1876	642,035
1886	902,023
1896	1,117,213

STATEMENT SHOWING NUMBER OF TRAINS RUN.

Years.	Number of Trains.
1876 ...	31,151
1886 ...	34,894
1896 ...	37,351

9. Sale of old rails.—

The results obtained are as under:—

Half-year ending	Value of old iron rails sold.	Value of unserviceable iron or steel rails used for works.	Total value.
	Rs.	Rs.	Rs.
30th June 1896	35,421	8,845	44,266
31st December 1896	22,863	4,840	27,703

10. Covering sand Ballast with broken stone.—1¾ miles on the Bangalore Branch and 47 miles on the North-West Line have been covered during the half-year making a total of 363½ and 97½ miles completed on the South-West Line (including Bangalore and Nilgiri Branches) and North-West Line respectively.

11. Signals and interlocking.—The orders of Government to alter all signals, so that they shall show a danger signal in the event of any connection breaking, are receiving attention with the following results.

DISTANT SIGNALS.

Division.	Total number to be done.	Done previously.	Done during half-year.	Total done.	Remaining to be done.
South-West Line	194	65	66	131	63
North-West Line	80	31	49	80	None.

An estimate for the alteration of 155 Home Signals will shortly be submitted.

12. Arcot-Ranipet Survey.—The revised Plans and Estimate alluded to in my last report were sent to you on the 27th November last, and these were again returned by you to this office on the 5th of February 1897 for further revision and the matter is having my best attention.

13. Breaches on the North-West Line.—A severe Cyclonic rain storm passed across the N. W. Line causing considerable damage to way and works between Nagari and Koduru Stations as specified below 8·04 inches of rain fell on the 27th November 1896 as registered at Arkonam.

On the night of the 27th and morning of the 28th November 1896 the Line between Nagari and Koduru Stations was damaged as under:—

$\frac{64}{12}$ Mile.—Bank and ballast behind the West abutment of Bridge No. 105 washed away.

$\frac{77}{8}$,, Bank and ballast washed away for a length of 800 feet for a depth of from 2 to 4 feet from rail level.

$\frac{77}{10\text{-}11}$,, Bank and ballast washed away for a length of 40 feet and to depth of from 2 to 2½ feet from Rail level.

$\frac{87}{13\text{-}14}$,, Water overflowed the line to a depth of 2 feet for 550 feet.

$\frac{94}{15}$,, Ballast washed away in several places.

$\frac{95}{2\text{-}3}$,, Bridge No. 230, three 12 feet Girders half the north abutment and both piers were undermined and washed away, and the bank behind the north abutment washed out to a depth of 19 feet.

$\frac{95}{4\text{-}5}$,, Ballast carried away and bank scoured out to a depth of 8 feet.

$\frac{95}{7\text{-}9}$,, Bank washed away for a length of 300 feet and to a depth of from 4 to 8 feet from rail level.

$\frac{95}{14\text{-}15}$,, Bank washed away in several places. Bridge No. 232 at $\frac{95}{14}$ miles 2-20 feet, and 1-50 feet Girders; south east abutment slightly scoured.

$\frac{107}{10\text{-}11}$,, Kodur Bridge, 5-50 feet Girders—Pier No. 4 undermined and the down stream half washed away, north abutment undermined and thrown into the river bed, and 16 feet of the bank behind the north abutment washed away.

The up Mail from Raichur passed over this bridge at 3-40 o'clock on the morning of the 28th November 1896, and the down stream half of pier No. 4 commenced to fall at about 4-30 o'clock, so that there was only 50 minutes interval between the passage of the train and the falling of the pier. The north abutment fell at about 8 o'clock on the same day.

The Bridge was made fit for the passing of trains at 2 o'clock P.M., on the 3rd December, by the insertion of a temporary sleeper abutment and pier.

The breaches at $\frac{64}{12}$, $\frac{77}{8}$, $\frac{77}{10\,11}$, $\frac{94}{15}$, $\frac{95}{4\text{-}5}$, $\frac{95}{7\text{-}9}$ and $\frac{95}{14\text{-}15}$ miles were ready for traffic on the 30th November.

Nº 1

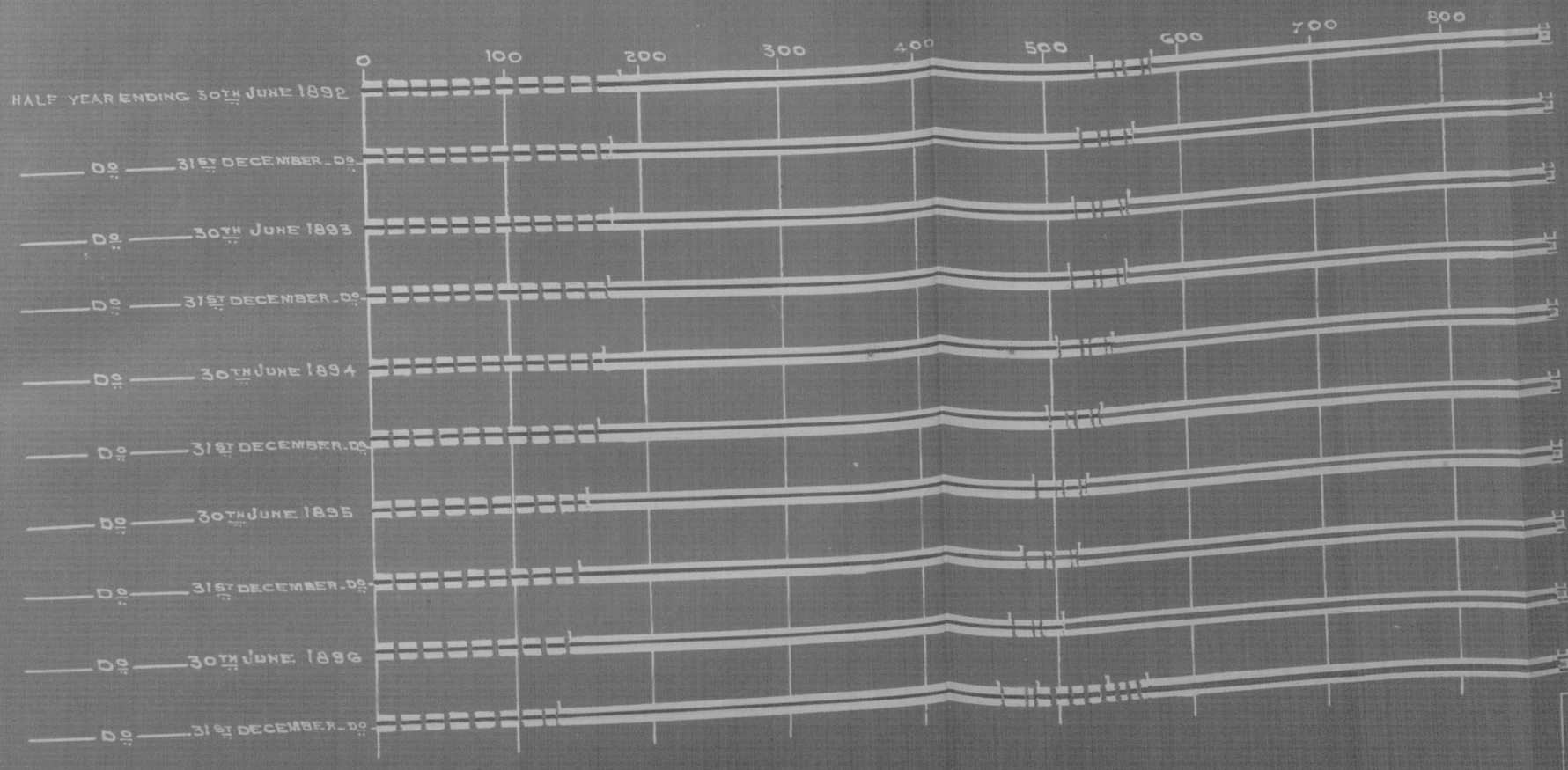
MADRAS RAILWAY

DIAGRAM SHEWING THE DIFFERENT DESCRIPTION OF RAILS ON THE MAIN LINE FOR 10 HALF YEARS FROM 1892 TO 1896

Edwd D'Stoney, Lt-Col. R.E.
AG: CHIEF ENGINEER
FEBRUARY 1897

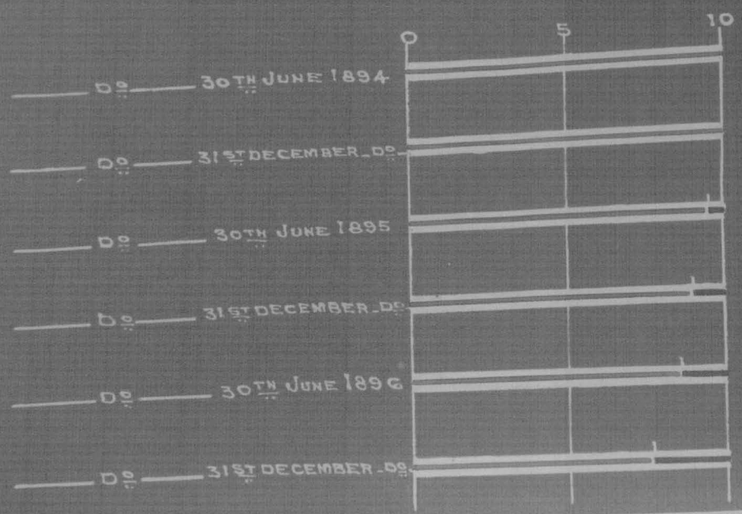
MADRAS RAILWAY

SCALE 100 MILES TO 1 INCH

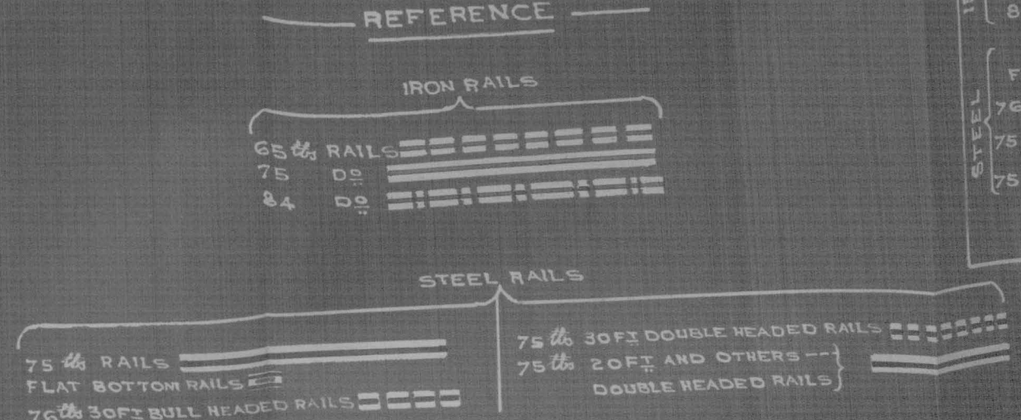


K.G.F. RAILWAY

SCALE 5 MILES TO 1 INCH



REFERENCE



SUMMARY

SHEWING TOTAL MILES OF DIFFERENT DISCRIPTION OF RAILS LAID ON MADRAS RAILWAY AT END OF 1896

	DESCRIPTION OF RAILS	LENGTH IN MILES M. RY	LENGTH IN MILES K.G.F.RY
IRON	65 lbs.--RAILS	132.81	"
	75 lbs ---Do	319.18	7.73
	84 lbs.---Do	30.81	"
STEEL	FLAT BOTTOM RAILS	5.65	"
	76 lbs 30 FT BULL HD RAILS	54.07	"
	75 lbs 30 FT DOUBLE HD RAILS	32.38	"
	75 lbs 20 FT AND OTHERS DOUBLE HD RAILS	307.23	2.27
	TOTAL	881.63	10.00

No. 2

MADRAS RAILWAY

DIAGRAM OF DEFECTIVE RAILS REMOVED & BROKEN POTS REPLACED

FOR 29 YEARS FROM 1868 TO 1896

VERTICAL SCALE 1000 RAILS / do. 1000 POTS } TO ½ INCH — HORIZONTAL SCALE 1 YEAR TO ½ INCH

Edward W. Thomas Dte
A.C.E.M.S.R.

A.C. CHIEF ENGINEER
FEBRUARY 1897



Nº 3

MADRAS RAILWAY

DIAGRAM SHEWING COST OF MAINTENANCE OF PERMANENT WAY

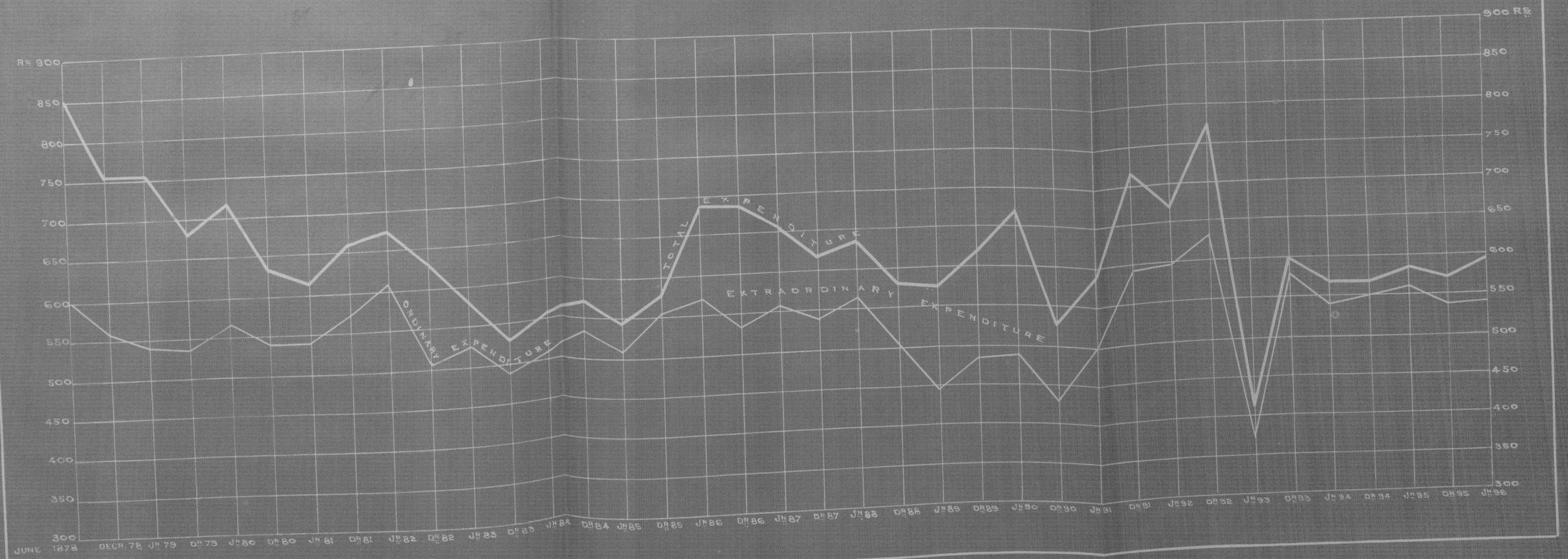
PER MILE PER HALF YEAR

FOR 37-½ YEARS FROM JUNE 1878 TO JUNE 1896

HORIZONTAL SCALE ONE YEAR = 1 INCH

VERTICAL SCALE 100 RUPEES = 1 INCH

Edward M. Stoney Lt Col
AG. CHIEF ENGINEER
FEBRUARY 1897



MADRAS RAILWAY COMPANY,

CHIEF AUDITOR'S OFFICE,

MADRAS, 5*th March* 1897.

THE ACTING AGENT AND MANAGER,

Madras Railway Company.

I beg to forward herewith the usual statements of the Company's Accounts for the half-year ending 31st December 1896.

Capital.

1. *Statement No. V.*—The Capital expenditure for the half-year amounted to Rupees 2,68,888-11-2, and was incurred chiefly on alterations and additions to stations and station-yards, laying new permanent way over girder bridges, 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 Rupees 12,11,22,620 and the expenditure excluding suspense Rupees, 11,86,28,231, which gives an average of Rupees 1,41,355 per mile open.

REVENUE.

General Results.

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

——	Half-year ending December, 1895.	Half-year ending December, 1896.	Difference.	
	Miles.	Miles.	Miles.	Per cent.
Mean Mileage worked	839·22	839·22	...	...
Train-Mileage	1,278,459	1,243,216	— 35,243	— 2·76
	No.	No.	No.	
Average number of trains over the whole line daily in both directions...	8·28	8·05	— ·23	...
	Rs.	Rs.	Rs.	Rs.
Gross Earnings	55,01,371	54,11,851	— 89,520	— 1·63
Working Expenses	26,47,541	27,50,916	+ 1,03,375	+ 3·90
Net Earnings ...	28,53,830	26,60,935	— 1,92,895	— 6·76
Percentage of Working expenses to Gross Earnings	48·13	50·83	+ 2·70	...
Percentage of Net Earnings to Capital outlay, including suspense ...	2·36	2·20	— ·16	...

4. The Gross Earnings per mean mile worked per week averaged Rupees 248 against Rupees 252 and were realized at a cost of 50·83 per cent. against 48·13 per cent. in the corresponding half of the previous year.

5. The percentage of working expenses to Gross Earnings for the year 1896 was 50·50 against 47·55 for 1895.

6. The Net Earnings for the half-year, after paying the contribution to the Provident Institution, fell short of the guaranteed interest by Rs. 2,44,903-9-2. During the half-year, the percentage of net Earnings on Capital outlay including suspense, was 2·20 as compared with 2·36 in 1895, and the percentage of net earnings for the year 1896 was 4·45 against 4·86 for 1895.

Gross Earnings.

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

——	Half-year ending Dec. 1895.	Half-year ending Dec. 1896.	Difference.	
			Amount.	Per Cent.
	Rs.	Rs.	Rs.	Rs.
Coaching	23,70,761	22,37,360	— 1,33,401	— 5·63
Goods	30,43,481	30,60,222	+ 16,741	+ ·55
Electric Telegraph	9,935	10,440	+ 505	+ 5·08
Steam-boat	...	...	...	...
Sundries	77,194	1,03,829	+ 26,635	+ 34·50
Total ...	55,01,371	54,11,851	— 89,520	— 1·63

8. **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.
Second half of 1895 ...	12,084	1,15,990	56,748	1,45,611	4,359,213	17,90,431	4,428,045	20,52,032
Second half of 1896 ...	12,860	97,236	48,508½	1,19,133	4,756,749	17,36,133	4,818,117½	19,52,502
Increase	776	...	...	...	397,536	...	390,072½	...
Decrease	...	18,754	8,239½	26,478	...	54,298	...	99,530

9. The increases and decreases in the various descriptions of Passenger Traffic are shewn in the detail statement of Abstract H, *vide* para. 104.

10. The first class traffic shews an increase in numbers of 776 and a decrease of Rs. 18,754. The improvement in numbers is probably mainly due to new traffic on account of the opening of the Madras-Ennur Line. This Traffic being short distance would not appreciably affect the earning. The decrease in money is largely due to a falling off in ordinary traffic, but a considerable decrease also occurs under special trains included in this item consequent on abnormal traffic in the corresponding period.

11. The Second class traffic shews a decrease of 8,239½ and Rs. 26,478; nearly the whole of the falling off is recorded under the head of Troops and Police.

12. The Third class traffic shews an increase of 397,536 and a decrease of Rs. 54,298. As in the previous half-year the fluctuation is due to the alteration of the short distance fares. In the usual detail Report on third class traffic to be submitted shortly, the differences will be analysed.

13. Passengers' luggage shews an increase of Rs. 3,250.

14. The Receipts from ordinary Horse, Carriage and Dog traffic shew a decrease of Rs. 13,319 while the Military traffic under the same head has increased by Rs. 3,240.

15. A very large decrease, Rs. 10,482, appears under the head of Military Baggage. This is due to the fact that in the corresponding period a somewhat abnormal number of special trains were run for the movement of troops.

16. *Parcels for the Public*—These receipts shew a decrease of Rs. 3,406, or 2·30 per cent.

17. **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 1895.

——	Half-year ending December, 1895.		Half-year ending December, 1896.	
	Quantity.	Earnings.	Quantity.	Earnings.
	Tons.	Rs.	Tons.	Rs.
Merchandise, General	378,532	27,28,008	402,156	27,13,849
Military Stores	984	37,947	1,000	43,475
Railway materials for construction	1,331	4,089	532	1,610
Coal (including Locomotive Revenue)	65,059	2,11,514	75,113	2,26,094
Revenue stores (excluding Locomotive Coal)	107,722	46,193	96,825	46,251
Other Goods Traffic	...	15,730	...	28,943
	553,628	30,43,481	575,626	30,60,222
Less—Outstandings irrecoverable or not recovered ...	...	...	...	...
Total ...	553,628	30,43,481	575,626	30,60,222

18. Under the head of Merchandise General an increase of tons 23,624 and a decrease of Rs. 14,159 occur. The increase in weight is attributable to an improvement in grain traffic and to the conveyance of stores for the construction of the East Coast Railway. The falling off in the receipts is principally on Timber, Salt and Provision traffic.

19. *Railway materials for construction*—Decrease tons 799 and Rs. 2,479.

20. *Coal (including Locomotive Revenue.)*—Increase tons 10,054 and Rs. 14,580. About 8,000 tons of coal was carried for the Locomotive Department in excess of the corresponding period, the increased receipts for public traffic amounted to nearly Rs. 12,000.

21. *Other Goods Traffic.*—Increase Rs. 13,213—an increase of some Rs. 3,000 is recorded in Horse traffic conveyed in Goods vehicles. A large part of the remainder of the increase is due to adjustments in respect of the Chitral Expedition.

22. 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 December, 1895.		Half-year ending December, 1896.	
	Quantity.	Earnings.	Quantity.	Earnings.
	Tons.	Rs.	Tons.	Rs.
Cotton—				
Raw	9,807	1,38,341	10,232	1,37,714
Dyes and Tans—				
Others	8,551	83,842	8,206	79,993
Grain and Pulse—				
Rice in the husk	17,339	1,31,447	11,930	59,908
Rice not in the husk	22,997	1,41,227	32,199	1,72,711
Jawar and Bajra	7,117	50,394	23,068	1,32,957
Gram and Pulse	17,611	1,06,973	14,015	83,067
Others	25,793	1,72,750	25,518	1,73,919
Hides and Skins—				
Skins of Sheep, &c.—				
(*a*) Dressed or Tanned	4,163	62,583	3,469	55,239
(*b*) Raw	7,611	94,531	8,373	1,05,046
Metals—				
Iron	6,182	72,291	7,335	65,184
Oils—				
Kerosine	4,420	55,976	4,611	55,982
Oil Seeds—				
Til or Jingili	8,780	60,025	7,541	52,121
Provisions—				
Others	29,665	2,18,253	26,377	1,92,821

	Half-year ending December, 1895.		Half-year ending December, 1896.	
	Quantity.	Earnings.	Quantity.	Earnings.
	Tons.	Rs.	Tons.	Rs.
Salt	28,053	1,59,247	24,131	1,38,787
Spices—				
Betel-nuts	4,522	46,443	4,078	42,431
Sugar—				
Unrefined, *viz.*, Mollasses and Jaggery or Gur and other Saccharine produce	8,537	54,374	10,182	59,452
Timber	59,699	2,11,102	50,920	1,62,763
All other Articles of Merchandise	30,043	3,16,051	33,698	3,49,343

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

23. **Cotton Raw**—Increase tons 425 and decrease Rs. 627.

24. **Dyes and Tans**—*Others.*—Decrease tons 345 and Rs. 3,849.

25. **Grain and Pulse**—*Rice in the husk.*—Decrease tons 5,409 and Rs. 71,539. Nearly the whole of this decrease occurs in traffic from Madras to South-West Line stations due no doubt to the scarcity of rain in the surrounding district. It is found that some Rs. 10,000 has been earned in excess of the corresponding period on paddy traffic from stations beyond Bangalore to the South West district, the traffic local to the South-West Line also shews an improvement.

26. **Grain and Pulse**—*Rice not in the husk.*—Increase tons 9,202 and Rs. 31,484. The local traffic in rice compared with the corresponding period is fairly stationary the increase being divided pretty equally between traffic received from the South Indian and Southern Mahratta Lines viâ Katpadi and Guntakal respectively and traffic sent to G. I. P. stations via Raichur.

27. **Grain and Pulse**—*Jawar and Bajra.*—Increase tons 15,951 and Rs. 82,563. A decrease of some Rs. 15,000 occurs in local traffic from North-West Line stations between Kondapuram and Guntakal while a large additional earning of some Rs. 17,000 is recorded in traffic originating at South-West Line stations between Erode and Podanur, including the Mettupalaiyam Branch. During the months of October, November and December 1896 large consignments of cholum and cumbu were forwarded from Madras Railway stations to north of Raichur, the earning on this traffic alone amounting to some Rs. 45,000 while practically no traffic is recorded in the corresponding period. An increase of some Rs. 25,000 is noted in traffic received from foreign lines viâ Guntakal, Bangalore City and Renigunta in the last three months of the half-year.

28. **Grain and Pulse**—*Gram and Pulse.*—Decrease tons 3,596 and Rs. 23,906. The loss is principally on traffic received from the Southern Mahratta Line via Bangalore City; a decrease of some Rs. 8,000 however also occurs on traffic to Madras Railway via Raichur.

29. **Grain and Pulse**—*Others.*—Decrease tons 275 and increase Rs. 1,169.

30. **Hides and Skins**—*Skins of Sheep, &c., Dressed or Tanned.*—Decrease tons 694 and Rs. 7,344. Principally in local traffic at Bangalore Cantonment, Ambur and Salem.

31. **Hides and Skins**—*Skins of Sheep, &c., Raw.*—Increase tons 762 and Rs. 10,515.

32. **Metals**—*Iron.*—Increase tons 1,153 and decrease Rs. 7,107.

33. **Oils**—*Kerosine.*—Increase tons 191 and Rs. 6.

34. **Oil Seeds**—*Til or Jingili.*—Decrease tons 1,239 and Rs. 7,904. This falling off is practically all in local traffic. In the corresponding period some Rs. 3,000 was earned on

traffic from Bangalore City alone while this station does not appear to have forwarded any oil-seeds in the past half-year. A decrease in the receipt at stations between Erode and Podanur particularly Erode and Tiruppur is also noticed.

35. **Provisions**—*Others.*—Decrease tons 3,288 and Rs. 25,432. Practically the whole of this decrease is confined to local traffic from stations on the South West Line between Erode and Calicut; Mettupalaiyam and Coimbatore being most noticeable.

36. **Salt**—Decrease tons 3,922 and Rs. 20,460.

37. **Spices**—*Betel Nuts.*—Decrease tons 444 and Rs. 4,012.

38. **Sugar**—*Unrefined, viz., Molasses and Jaggery or Gur and other Saccharine produce.*—Increase tons 1,645 and Rs. 5,078.

39 **Timber**—Decrease tons 8,779 and Rs. 48,339. This decrease is divided fairly equally between local and foreign traffic. The local falling off is in traffic from stations between Podanurand Calicut. Olavakkot and Kallayi being most prominent, these two stations alone account for some Rs. 15,000 of the loss. The falling off in foreign traffic has reference to timber for the Kolar Gold Fields.

40. **All other articles of Merchandise**—Increase tons 3,655 and Rs. 33,292.

Working Expenses.

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

	Second Half of 1895.		Second Half of 1896.		Difference.	
	Amount.	Per cent. on Gross Earnings.	Amount.	Per cent. on Gross Earnings.	Amount.	Per cent.
	Rs.		Rs.		Rs.	
Maintenance	5,83,099	10·60	6,45,543	11·93	+ 62,444	10·71
Locomotive	10,29,076	18·71	10,51,453	19·43	+ 22,377	2·17
Carriage and Wagon ...	2,91,120	5·29	3,05,538	5·65	+ 14,418	4·95
Traffic	4,09,760	7·45	4,16,454	7·69	+ 6,694	1·63
General...	2,85,229	5·18	2,86,821	5·30	+ 1,592	·56
Steam-boat	*Nil.*	...	...	...	...	...
Special and Miscellaneous ...	49,257	·90	45,106	·83	− 4,151	8·43
Total ...	26,47,541	48·13	27,50,915	50·83	+ 1,03,374	3·90

42. **Abstract A.**—There is a net increase of Rs. 62,444 in the amount expended by the Engineering Department.

43. Under "General Superintendence" the net decrease is Rs. 985 due to Mr. West's pay being charged to the Agent's Office, he acting as Agent and Manager during Mr. Moss' absence on furlough, to Mr. Pawley being on furlough, and to a decrease in the allowance for exchange compensation owing to the higher rates of exchange. On the other hand, there were increases owing to Mr. Stoney acting as Chief Engineer and to Messrs. French and Chisholm returning to full pay from furlough. There is a decrease of Rs. 4,210 under Subordinate Superintendence due to a reduction in the number of Inspectors in consequence of a re-arrangement of the lengths of Sections. An increase of Rs. 4,483 in office expenses is chiefly due to the charging off of surveying instruments which were previously held at the debit of Store account.

44. "Maintenance and Renewal of Permanent Way" shows an increase of Rs. 30,339, which is due to heavier renewals with 30-foot bull-headed steel rails.

45. "Repairs of Bridges, &c.," show an increase of Rs. 11,941 chiefly due to a sum of Rs. 10,660 being charged off for depreciation on bridge materials in stock.

46. "Repairs of Stations and Buildings" show an increase of Rs. 18,471 chiefly due to increased expenditure on sanctioned works.

47. Under "Unclassified expenditure" there is an increase of Rs. 4,824, of which Rs. 2,758 is in loss by exchange due to increased expenditure of English stores. There is also a sum of Rs. 1,314 charged for expenses of Arcot-Ranipet Survey.

48. There is an increase of Rs. 3,248 in the credit for working the Kolar Gold Fields Railway.

49. The number of miles of rails removed during the half-year was 59·9414 against 49·8794 in the second half of 1895.

50. The cost of maintaining a mile of single track including sidings was Rs. 635·53 against Rs. 574·56. The figures in this and preceding paragraphs include the mileage maintained for the Kolar Gold Fields Railway.

51. **Abstract B.**—*Locomotive Expenses.*—The net increase amounts to Rs. 22,377.

52. Under "General Superintendence" the increase of Rs. 3,085 is nearly covered by the decrease of Rs. 2,552 in Abstract C. There is a decrease in salaries due to Mr. Lefébure's retirement on 31st July 1896; the vacancy thus caused was filled by the appointment of Mr. Porteous on 1st December. There is an increase under Subordinate Superintendents caused by a vacant appointment of Carriage Painter having been filled on 10th July and to the transfer of the Weigh Bridge Inspector from the Traffic to the Locomotive department.

53. "Running Expenses" show a net decrease of Rs. 5,223, there being a saving of Rs. 9,067 in wages and overtime allowances and an increase of Rs. 4,267 on labor for fuelling, cleaning, &c.

54. "Fuel."—There is an increase of Rs. 25,476 under this head notwithstanding a decrease of 19,599 in the Train-mileage run. The following comparison with the corresponding period five years ago is interesting:—

——		December 1891.	December 1896.	Difference.	
					Per cent.
Coal and Patent Fuel	Tons.	9,681	16,539	+ 6,858	+ 70·84
Do. do.	Rupees.	1,56,766	2,31,272	+ 74,506	+ 47·53
Wood Fuel	Tons.	41,545	41,545	No difference.	.....
Do.	Rupees.	2,09,390	2,09,390	„ „	.....
Train-mileage		1,288,304	1,275,064	– 13,240	– 1·03
Gross ton-mileage		368,569,900	370,978,049	+ 2,408,149	+ 0·65

It will be noticed that the train-mileage has decreased by 13,240 miles and that the work done, *viz.*, the gross ton-mileage was practically the same, having exceeded that of 1891 by only little over one half of one per cent. But the consumption of coal increased by Tons 6,858 or 70·84 per cent. in quantity and Rupees 74,506 or 47·53 per cent. in value, the quantity and value of wood fuel consumed being exactly the same in both half-years.

55. "Water (including Wages and Stores)" shows an increase of Rs. 3,066.

56. "Oil, Tallow and other Stores" show an increase of Rs. 4,833.

57. Under "Unclassified Expenditure" there is a decrease of Rs. 4,691 for loss by Exchange and an increase of Rs. 2,626 for carriage of Revenue Stores.

58. There is a credit of Rs. 7,135 for cost of working the Madras-Ennur Railway.

59. The cost of the department per train-mile was annas 13·50 against annas 12·93 and per engine-mile annas 11·33 against annas 10·96 in the second half of 1895.

60. **Abstract C.**—*Carriage and Wagon Expenses.*—The net result is an increase of Rs. 14,418.

61. "General Superintendence."—The differences are explained under a similar heading in Abstract B.

62. "Repairs and Renewals of Vehicles" show an increase of Rs. 18,279 probably due to a larger number of goods vehicles having been renewed.

63. "Unclassified Expenditure."—There is a decrease of Rs. 1,880 for loss by Exchange.

64. A sum of Rs. 2,076 is credited to this Abstract on account of the working of the Madras-Ennur Line.

65. The Carriage and Wagon Expenses per train-mile were annas 3·92 against 3·66 and per 1,000 vehicle miles run by home vehicles Rs. 11·21 against Rs 11·13 in the corresponding half-year of 1895.

66. **Abstract D.**—*Traffic Expenses.*—The results of the half-year show a net increase of Rs. 6,694.

67. "Salaries and Wages" are Rs. 3,777 higher than in the corresponding period of 1895. The outlay under General Superintendence is practically unchanged, the saving effected by reason of the Traffic Manager's absence on furlough being absorbed by increases to other Traffic Officers. There is an increase of Rs. 1,229 in expenditure on Station Staff partly due to the opening of the Ennur Branch and of Rs. 2,563 on Train Staff.

68. "Fuel, Lighting, &c." show an increase of Rs. 2,865.

69. "Printing, Stationery and Tickets" are less by Rs. 2,671.

70. "Payments to other Lines."—An increase of Rs. 3,517 is due to an adjustment of Guntakal Joint Station expenses in December 1896 half-year.

71. "Unclassified Expenditure."—An increase of Rs. 2,111 for loss by Exchange is due to an increase in the consumption of English stores.

72. A credit of Rs. 2,825 is given in this Abstract for proportion of the recovery for cost of working the Madras-Ennur Line.

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

——	Second half of 1895.	Second half of 1896.	Difference.	
	Tons.	Tons.	Tons.	Per Cent.
Tonnage of Goods	553,628	575,626	+ 21,998	+ 3·97
	Ton-miles.	Ton-miles.	Ton-miles.	
Ton-mileage of Goods	70,828,453	70,464,016	– 364,437	– ·51
	Rs.	Rs.	Rs.	
Station Staff	1,90,841	1,92,070	+ 1,229	+ ·64
Train Staff	49,846	52,409	+ 2,563	+ 5·14

74. The total cost of the department averaged annas 5·34 as against annas 5·15 per train-mile in the second half of 1895.

75. **Abstract E.**—*General Charges.*—The net increase is Rs. 1,592. Home expenditure has decreased by Rs. 696.

76. In "Salaries of Indian Management" the total increase is Rs. 4,032. The increase in the Agent's Office is Rs. 3,797 due to Mr. West's pay as Acting Agent and Manager as well as Mr. Moss' furlough pay being charged to that head, less a saving of Rs. 1,529 under Exchange compensation.

An increase of Rs. 2,737 in the Audit Office is more than covered by the increased expenditure on the subordinate staff due to the transfer of Engineering Accounts Staff in June 1896 half-year and to additional clerks entertained for new statistics and increased work.

A decrease of Rs. 1,453 for Medicine is due to no indent having been complied with during the half-year.

77. "Police."—An increase of Rs. 1,271 is chiefly due to the inclusion of charges for cost of Police on the Kolar Gold Fields Railway for the ten months to December 1896.

78. "Electric Telegraph" shows an increase of Rs. 2,659.

79. "Unclassified Expenditure" shows a decrease of Rs. 5,743, of which Rs. 4,093 occurs in loss by Exchange due to the higher rates prevailing during the half-year under review.

80. A sum of Rs. 1,969 is credited to this Abstract being recovery for cost of working the Madras-Ennur Line.

81. **Abstract G.**—*Special and Miscellaneous Expenditure.*—The result is a net decrease of Rs. 4,151.

82. "Law Charges" show a decrease of Rs. 1,827 due to the fact that the Solicitors' bill of cost for December 1896 half-year had not been presented when the accounts were under preparation.

83. Under "Miscellaneous" there is a decrease of Rs. 2,691 due to Commission and Stamp Duty on Debentures, together with loss by Exchange thereon having been charged in December 1895 half-year.

84. *Kolar Gold Fields Railway.*—A sum of Rs. 46,918 being the cost of working this line for the half-year to 31st December 1896 (exclusive of Rs. 4,255 for hire of rolling stock), has been recovered and distributed over the several abstracts of expenditure in the Madras Railway Revenue Accounts as credits.

85. *Madras-Ennur Section of the Bezwada-Madras Railway.*—A sum of Rs. 27,870, being the cost of working this line for the December 1896 half-year (exclusive of Rs. 2,085 for hire of rolling stock, &c.), has been recovered. Of this sum, Rs. 13,558 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.

86. *Statement of Train-mileage No. XIV.*—As compared with the second half of 1895, there was a decrease in the train-mileage of 19,599, or about 1·51 per cent.: the miscellaneous engine-mileage of 19·19 per cent. of train-mileage against 17·97 per cent. in the corresponding half of the previous year.

SUPPLEMENTARY.

Capital.

87. The total Capital expenditure of the half-year has been as follows :—

Cash...	Rs.	70,719 12 9
Stores...	„	1,98,168 14 5
	Rs.	2,68,888 11 2

88. 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.
Perambur	20,837	15	10			
Podanur	13,175	12	7			
Nandalur	12,156	8	1			
Jalarpet	11,980	13	6			
Washermanpet	9,858	5	1			
Mangapatnam	6,341	15	7			
Bisanattam	6,210	12	9			
Rayapuram	4,721	12	9			
Bangalore City	3,671	9	2			
Gudupalli	3,659	6	8			
Tiruvallur	3,136	10	3			
Bowringpet	2,797	15	10			
Arkonam	2,721	11	10			
Nagari	1,803	14	5			
Manur	1,204	2	5			
Mettupalaiyam	1,074	6	11			
Vinnamangalam	1,010	15	5			
Other Stations	2,224	8	9			
				1,08,589	5	10
5 Houses for Native Station and Assistant Station Masters				3,840	5	6
12 Huts for Police Force on Bangalore Branch				1,547	4	9
Alteration of distant signals				1,538	4	6
Masonry piers for five 50′ openings at $\frac{179}{1}$ mile N. W. Line				1,520	13	7
Private siding for Tile Works, Palghat Branch, near Olavakkot				1,318	11	2
Strengthening bridge at $\frac{107}{10-11}$ mile				1,100	0	11
Watering arrangements at 204 mile S. W. Line				1,089	13	8
Laying new permanent way over grider bridges				29,338	0	0
Electric Telegraph				1,477	7	7
				1,61,370	3	6
Plant—						
Locomotive Shop Plant	14,460	12	4			
Stations and Office Furniture	1,405	2	2			
				15,865	14	6
Rolling Stock—						
2 Tank wagons 15 tons for conveying oil				2,552	8	11
1 Support wagon for 15-ton crane				734	0	6
2 Composite carriages				4,067	12	7
Fitting automatic brake gear to engines and carriages				9,147	8	9
25 Timber trucks				30,521	13	7
4 Composites, 20 third-class carriages, 2 third-class carriages with brakes, and 2 ordinary brake-vans				25,530	8	1
Fitting steam sanding gear				51	6	0
Fitting 10 Engines with vacuum brake				8,279	0	1
Fitting carriages with vacuum brake				1,311	10	7
2 Composites Bogie				9,456	4	1
				2,68,888	11	2
			Rupees ...			

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

				Rs.	A.	P.
Stores balances at 30th June 1896				23,36,856	5	6
Add Receipts—						
From England	Rs.	3,88,709	3 0			
„ Local purchases	„	11,74,033	14 1			
				15,62,743	1	1
				38,99,599	6	6
Deduct Issues—						
Capital Account	Rs.	1,98,168	14 5			
Revenue „	„	10,06,300	1 5			
By Sales	„	1,32,311	13 11			
				13,36,780	13	9
Stores balances at 31st December 1896			Rupees...	25,62,818	8	9

90. The following particulars show the balances of the several Store accounts at 30th June and 31st December 1896 :—

	30th June 1896.	31st December 1896.
General Store Account	...Rs. 3,57,370	Rs. 3,35,763
Locomotive Store and Workshop Account	... „ 12,67,391	„ 14,71,375
Engineering do. do.	... „ 5,53,994	„ 5,18,550
All other, including stores in Transitu	... „ 1,58,102	„ 2,37,130
Total	Rs. 23,36,857	Rs. 25,62,818

91. These figures show an increase for the six months of Rs. 2,25,961 in the amount of Capital locked up in Stores, the increase being wholly under Locomotive stores and stores in Transitu.

92. The total of Rs. 25,62,818 includes Rs. 3,44,600, the value of returned stores, of which Rs. 2,29,500 represents returned stores of the Engineering Department as against Rs. 2,54,000 on 30th June 1896.

REVENUE.

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

December 1895	48·13 per cent.
June 1896	50·18 „
December 1896	50·83 „

94. The net Revenue amounts to Rs. 26,60,935-2-6 as compared with Rs. 28,53,829-15-6 in the corresponding half of 1895. It gives at 1*s.* 10*d.* per rupee, £243,919-1-2, equal to £2-4-1 per cent. for the half-year on the Capital bearing interest at the 31st December 1896, *viz.*, £11,057,630.

95. The net earnings fall short of the guaranteed interest by £22,449-9-10, and after providing for interest on Debentures, the balance is equivalent to a dividend at the rate of £4-10-3 per cent. per annum on the subscribed capital of the Company, as will be seen from the following figures :—

Total amount of net earnings		£ 243,919 1 2
Interest as follows :—		
£ 60,000 at 2¾ per cent. per annum...	£ 825 0 0	
£ 337,800 „ 3 „ „ ...	£ 5,067 0 0	
£ 402,200 „ 3¼ „ „ ...	£ 6,535 15 0	
		12,427 15 0
Balance ..		£ 231,491 6 2

Equivalent to £4-10-3 per cent. per annum on £10,257,630.

96. 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 5 years, &c.		
		£	£	*s.*	*d.*	£	*s.*	*d.*
Average for 5 years, 1871—75 ...	845	10,280,682	235,549	1	0	2	6	0
„ 1876—80 ...	858	10,526,673	224,439	17	6	2	2	9
„ 1881—85 ...	860	10,638,258	245,448	10	6	2	6	1
„ 1886—90 ...	842	10,697,630	327,998	6	9	3	1	3
„ 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

97. With reference to para. 101 of my half-year's report to 30th June 1896, the outstanding balance of surplus profits has been received and will be mentioned in my report for the current (June 1897) half-year.

98. The Revenue account for the half-year under review shows a decrease in gross earnings of Rs. 89,520 while the working expenses have increased by Rs. 1,03,375, net earnings therefore show a decrease of Rs. 1,92,895, or 6·76 per cent.

99. The decrease in the earnings is entirely in the coaching traffic, all other heads of traffic showing an increase.

100. The amount charged to Revenue for "loss by exchange" on the cost of Revenue stores and Home expenditure was Rs. 1,81,938, being Rs. 7,031 less than in the corresponding period of 1895, the rate of exchange being 14·345*d.* per rupee, which is 0·226*d.* above the rate for December 1895 half-year.

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

Receipts—

From Coaching traffic	Rs. 24,221 3 9	
„ Goods „	„ 60,626 13 9	
„ Electric Telegraph	„ 106 3 0	
„ Sundries	„ 149 3 10	
Total	Rs. 85,103 8 4	

Expenses—

Madras Railway for cost of working ...	Rs. 46,917 9 2	
„ „ for use of rolling stock.	„ 4,255 2 10	
		51,172 12 0
Net Revenue...	Rs. 33,930 12 4	

equal to a return of over 9 per cent. per annum on the Capital outlay, including suspense, of the Mysore Durbar, which is stated at Rs. 7,45,004.

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

Receipts—

From Coaching traffic	Rs. 20,218 8 7	
„ Goods „	„ 16,242 4 1	
„ Electric Telegraph	„ 15 10 0	
„ Sundries	„ 183 9 11	
Total Rs. ...	36,660 0 7	

Expenses—

Actual cost of Engineering Maintenance...	Rs. 13,558 2 9	
Madras Railway percentage proportion for other expenses	„ 14,312 1 2	
Hire of rolling stock, &c.	„ 2,085 0 0	
		29,955 3 11
Net Revenue...	Rs. 6,704 12 8	

This is equal to a return at the rate of 2·32 per cent. per annum on the Capital outlay (exclusive of charge for capitalization of Land revenue) Rs. 5,78,560.

The total expenditure, exclusive of engineering maintenance, on the combined undertakings, the Madras, Kolar Gold Fields and Madras-Ennur lines works out to Rs. 1-11-1 per train-mile run, while the sum of Rs. 14,312-1-2 recovered by the Company from the Madras-Ennur line represents only Rs. 0-15-6 per train-mile on the 14,758 train-miles run for that Branch.

Earnings.

103. 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.	December 1895	23,70,761	7	9
Do.	„ 1896	22,37,359	9	0
	Decrease ...	1,33,401	14	9

104. The details of the above Results are given in the following table :—

TRAFFIC.	Half-year ending December, 1895.			Half-year ending December, 1896.			Increase.			Decrease.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Ordinary Passengers, 1st Class.												
Periodical ...	1,05,752	2	10	90,148	10	5	...	...	...	15,603	8	5
2nd Class ...	1,753	4	0	2,114	3	3	360	15	3	...	...	...
Periodical ...	1,02,808	15	10	99,621	14	7	...	...	...	3,187	1	3
3rd Class ...	3,204	0	0	2,318	8	1	...	...	...	885	7	11
Periodical ...	17,34,440	9	3	16,97,506	4	8	...	...	...	36,934	4	7
Troops and Police, 1st Class...	2,336	8	0	2,445	0	7	...	...	...	...	...	...
2nd Class...	8,484	2	0	4,973	4	6	108	8	7	3,510	13	6
3rd Class...	39,598	1	1	17,192	5	0	...	...	...	22,405	12	1
Passengers' Luggage ...	53,654	2	7	36,181	12	5	...	...	...	17,472	6	2
Carriages ...	55,534	10	3	58,834	14	11	3,250	4	8	...	...	...
Horses ...	12,480	6	0	9,179	14	3	...	...	...	3,300	7	9
Dogs ...	36,190	13	5	25,302	15	2	...	...	...	10,887	14	3
Parcels ...	2,002	14	4	2,872	8	11	...	...	...	...	...	...
Do. for Revenue ..	1,47,925	7	4	1,44,519	8	3	869	10	7	3,405	15	1
Special Trains ...	2,567	15	0	2,844	3	8	...	...	...	...	...	...
Miscellaneous ...	11,672	8	0	1,280	0	0	276	4	8	10,392	8	0
Haulage and hire of Post Office Vans ...	601	12	8	714	3	1	...	...	...	...	...	...
	27,023	5	0	23,872	3	8	112	6	5	3,151	1	4
MILITARY.							...	...	...	...	...	...
Military baggage ...	21,914	0	8	11,431	8	9						
Carriages ...	...	...	...	65	13	0	...	65	13	10,482	7	11
Horses ...	671	15	0	3,859	15	0	3,188	0	0	...	...	...
Dogs, &c. ...	93	14	6	79	12	10	...	...	...	...	...	...
										14	1	8
	23,70,761	7	9	22,37,359	9	0	8,231	15	2	1,41,633	13	11
							Deduct Increase ...			8,231	15	2
							Net Decrease ...			1,33,401	14	9

105. 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	12,73,914	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

106. Statement showing 3rd and 4th Class Receipts minus Troops and Police from 1873 to December, 1896.

PERIOD.	3rd-Class Single Journey, excess, Return Journey and Season Tickets.			4th or Coely 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	...	...	...	13,69,221	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

107. 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	4,354,351	177,046,939		15,09,595	15	2
,, December 1894	5,048,748	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	4,727,778½	155,332,652		16,99,951	5	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 train 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.

108. 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

109. 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. 16,740-11-1.

TRAFFIC.	Half-year ending December 1895.			Half-year ending December 1896.			Increase.			Decrease.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1. Merchandise, General ...	27,23,008	9	9	27,13,848	10	5	...	...	...	14,159	15	4
2. Military Stores ...	37,946	14	0	43,474	14	0	5,528	0	0	...	...	...
3. Railway Materials ...	4,088	13	0	1,610	5	11	...	...	...	2,478	7	1
4. Coal	2,11,514	6	0	2,26,094	0	0	14,579	10	0	...	...	...
5. Revenue Stores ...	46,192	14	11	46,251	2	1	58	3	2	...	...	...
6. Live Stock	8,674	13	0	12,370	9	0	3,695	12	0	...	...	...
7. Military Live Stock ...	3,201	2	0	2,412	10	6	5,613	12	6	...	...	...
8. Rents and Demurrage ...	7,180	5	3	9,899	10	0	2,719	4	9	...	...	...
9. Interest on Outstanding Bills	...	...	...	...	...	...	...	...	...	...	...	...
10. Miscellaneous	3,075	8	8	4,259	15	9	1,184	7	1	...	...	...
TOTAL...	30,43,481	2	7	30,60,221	13	8	33,379	1	6	16,638	6	5
							Deduct Decrease ...			16,638	6	5
							Net Increase ...			16,740	11	1

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

TRAFFIC.	June 1884.	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. †
	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 ...	3·419	3·280	3·483	3·389	3·553	3·459	3·587	3·448	3·584	3·552	3·778	3·608	3·977	3·757	3·802	3·612	3·811	3·828	4·064	3·888	4·031	4·171	4·53	4·31	4·58	4·34
„ Working expenses per train-mile ..	1·953	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
Total net earnings per train-mile..	1·466	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
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	14·30	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
Second class	5·93	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
Lowest class	1·88	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	2·19
Average for all classes	2·13	2·09	2·11	2·05	2·06	1·83	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
Average cost of hauling a Coaching unit one mile.																										
Per passenger unit	·89	·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
Average profit per passenger ...	1·24	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
Average sum received for other coaching traffic per ton per mile.	32·55	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
Average cost of hauling other coaching traffic per ton per mile.	13·47	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
Average profit per ton ...	19·08	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
GOODS TRAFFIC.																										
Average sum received for carrying a ton one mile	7·75	7·69	7·93	7·65	7·76	7·59	7·73	7·75	7·83	7·79	7·60	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
Average cost of hauling a goods unit, viz., one ton one mile ...	5·29	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
Average profit on working a goods unit (viz., one ton), one mile ...	2·46	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

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

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

DESCRIPTION.	Half-year ending December 1895.		Half-year ending December 1896.	
	Maunds.	Rupees.	Maunds.	Rupees.
COUNTRY TRADE.				
Food Grains	2,519,471	6,12,928	2,955,018	6,36,533
Miscellaneous articles for Domestic consumption	2,031,128	5,97,543	1,955,629	5,53,564
Salt and Saltpetre	765,125	1,59,717	659,983	1,39,680
Materials used in Building, Construction and Manufacture	2,370,980	3,35,668	2,204,768	2,80,706
Cloths, Piece Goods and Twist (Indian) ...	172,592	81,085	168,974	74,929
Sundries	945,996	3,55,502	1,066,659	4,03,155
Total ...	8,805,292	21,52,843	9,011,031	20,88,567
FOREIGN TRADE.				
Exports or Colonial Produce...	1,296,890	5,21,591	1,359,818	5,42,915
Imports, Cloths, Piece Goods and Twist (European)	71,997	40,535	79,335	42,833
	123,802	49,923	137,103	52,397
European Stores for consumption in India ...	1,419,389	1,97,789	1,463,674	2,04,683
Coal and Coke for the Public	357,653	13,725	581,045	16,411
Do. for the Company	40,004	5,152	402,012	32,222
Railway Materials, &c.				
Total...	3,303,235	8,28,715	4,022,987	8,96,461
Grand Total...	12,138,527	29,81,558	13,034,018	29,85,028

112. 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	5,993,788	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

The total in the foregoing for the past half-year, *viz.*, Rupees 29,85,028 is made up from items in Abstract I of the Revenue Account, thus :—

1.	Merchandise	Rs. 27,13,849
2.	Military Stores	„ 43,475
3.	Railway Materials	„ 1,610
4.	Coal for the Public, &c. ...	„ 2,26,094
		Rs. 29,85,028

113. 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 46,486 tons and in amount of Rs. 2,23,780 during the past half-year.

DESCRIPTION OF COMMODITY.	To and from Foreign Railways.			
	Half-year ending December 1895.		Half-year ending December 1896.	
	Tons.	Rs.	Tons.	Rs.
I. Coal and Coke carried for the Public and Foreign Railways	48,140	1,82,636	50,704	1,97,463
	2,766	34,525	1,668	22,101
II. Cotton Raw				
III. Cotton Manufactured—				
1. Twist and Yarn, European ...	253	5,046	468	5,936
Do. Indian... ...	1,340	13,978	1,146	11,419
2. Piece Goods, European	277	5,723	430	8,018
3. Do. Indian ...	1,815	25,037	1,749	21,628
4. Do. ...	...	...	74	871
IV. Drugs and Chemicals—				
1. Intoxicating, other than Opium ...	...	...	...	4,552
2. Non-intoxicating—	...	4,460	447	
(a). Cinchona bark	327			
(b). Others				
V. Dyes and Tans—				
1. Indigo	199	3,615	104	2,183
2. Myrobolams	145	961	162	1,084
3. Catch	581	3,522	327	2,252
4. Turmeric	3,992	44,757	4,935	51,624
5. Aniline dyes				
6. Others				
VI. Grain and Pulse—				
1. Wheat	1,550	9,270	1,725	13,264
2. Rice in the husk	2,029	11,989	4,561	24,755
3. Rice not in the husk	4,654	27,557	8,753	55,690
4. Jawar and Bajra	8,079	55,153	14,762	88,872
5. Gram and Pulse	9,174	69,208	5,103	32,698
6. Others	9,125		11,276	86,706
VII. Hides and Skins—				
1. Hides of Cattle—	74	848	115	1,452
(a). Dressed or tanned ...	1,136	18,849	1,842	32,750
(b). Raw				
2. Skins of Sheep, &c.—	1,614	30,077	1,550	28,112
(a). Dressed or tanned ...	5,033	74,168	5,993	88,278
(b). Raw				
VIII. Horns				
IX. Jute—				
1. Raw	1,336	13,853	1,327	13,248
2. Gunny bags and Cloth ...				
X. Lac—				
1. Stick				
2. Shell	45	1,159	64	1,795
XI. Leather Manufactured ...				
XII. Liquors—				
1. Beer	909	14,597	977	16,445
2. Spirits	718	4,994	1,124	7,047
3. Wines	35	731	32	551
XIII. Metals—				
1. Copper, unwrought				
2. Brass, unwrought		2,141	108	1,898
3. Copper, wrought	177	29,194	3,716	31,479
4. Brass, wrought	2,493	1,472	150	2,253
5. Iron	94			
6. Others				
XIV. Oils—				
1. Kerosine	1,922	16,543	1,075	20,591
2. Castor	619	1,147	836	2,386
3. Cocoanut	156	1,646	86	1,035
4. Others	877	6,673	766	5,572
Carried forward...	106,054	7,34,581	128,155	8,86,149

DESCRIPTION OF COMMODITY.	To and from Foreign Railways.			
	Half-year ending December 1895.		Half-year ending December 1896.	
	Tons.	Rs.	Tons.	Rs.
Brought forward...	106,054	7,34,581	128,155	8,86,149
XV. Oil Seeds—				
1. Linseed	...	...	...	...
2. Rape and Mustard	186	1,686	...	...
3. Til or Jingili	6,994	49,117	6,908	48,438
4. Poppy	...	...	...	...
5. Earthnuts	668	1,228	1,087	1,673
6. Castor	1,360	10,016	1,026	5,676
7. Others	2,447	16,943	2,686	15,796
XVI. Opium	...	...	...	...
XVII. Paper and Paste Board	51	993	55	1,056
XVIII. Provisions—				
1. Ghee	497	6,651	396	5,422
2. Dried fruits and nuts	650	4,605	193	1,985
3. Others	7,880	66,105	8,678	69,506
XIX. Railway Plant and Rolling Stock *carried for the Public and Foreign Railways.*				
1. Loco. Engines and Tenders and parts thereof	...	...	...	...
2. Carriages and Truck and parts thereof	...	...	...	...
3. Materials	...	...	...	...
(*a*). Steel Rails and fish plates...	41	563	13,952	29,562
(*b*). Sleepers and keys of steel and cast iron	...	...	...	...
(*c*). Other sorts	...	...	...	...
XX. Salt	3,068	14,812	2,588	12,224
XXI. Saltpetre, &c.—				
1. Saltpetre	...	...	...	...
2. Other Saline substances ...	...	...	...	...
XXII. Silk, Raw—				
1. Foreign	...	...	...	...
2. Indian	57	1,180	58	1,262
XXIII. Silk, Piece Goods—				
1. Foreign	...	...	...	...
2. Indian	...	...	...	...
XXIV. Spices—				
1. Betel nuts	2,408	27,565	2,167	25,483
2. Pepper	328	5,161	360	4,040
3. Ginger	129	1,501	107	913
4. Chillies	539	4,608	678	6,066
5. Cardamoms	...	...	...	...
6. Others	261	1,867	499	3,108
XXV. Stone and Lime	2,205	7,889	5,534	14,832
XXVI. Sugar—				
1. Refined or crystallized including Sugarcandy	1,283	10,346	1,340	13,618
2. Unrefined, viz., Mollasses and Jaggery or gur and other Saccharine produce	3,270	20,904	5,237	38,727
XXVII. Tea—				
1. Foreign	...	...	...	...
2. Indian	42	2,685	44	1,761
XXVIII. Timber	18,113	88,828	20,712	64,798
XXIX. Tobacco—				
1. Unmanufactured	758	7,696	1,222	10,929
2. Manufactured—				
(*a*). Cigars	272	3,778	365	5,084
(*b*). Other sorts	371	3,739	217	2,595
XXX. Wool, Raw	88	554	60	576
XXXI. Wool, Manufactured—				
1. Piece Goods, European ...	...	...	29	685
2. Piece Goods, Indian	172	2,094	186	2,365
3. Shawls	...	...	...	...
XXXII. All other Articles of Merchandise ...	10,401	1,55,538	12,540	2,02,684
Total...	170,593	22,53,233	217,079	14,77,013

114. The interchange of Passenger Traffic with the Railways that are connected with Madras Railway is given in the following table, and shows an increase in number by 60,612½ and decrease in amount of Rupees 4,268-4-5 as compared with the corresponding half-year :—

PASSENGERS' TRAFFIC.	To and from Foreign Railways.			
	Half-year ending December 1895.		Half-year ending December 1896.	
	No.	Amount.	No.	Amount.
		Rs. A. P.		Rs. A. P.
Passengers ... ... 1st Class	3,191	38,366 6 5	3,788	35,677 11 3
,, ... 2nd Class	7,504½	36,079 3 5	8,496½	37,991 10 7
,, ... 3rd Class	317,00[illegible]	3,29,935 1 10	376,973	5,56,296 1 8
Soldiers ... ... 1st Class	544½	5,111 8 0	606	4,334 7 6
,, ... 2nd Class	6,937	25,618 9 0	6,892½	15,295 13 0
,, ... 3rd Class	17,471½	41 835 5 1	14 556	22,068 13 7
Return Fares ... ... 1st Class	116	1,414 1 0	164	1,455 5 0
,, ... 2nd Class	204	1,211 7 0	307	1,589 1 0
,, ... 3rd Class	3,232	270 2 6	5,535	320 9 3
Excess ... ... 1st Class	...	683 2 0	...	1,173 11 0
,, ... 2nd Class	...	112 5 0	...	96 11 3
,, ... 3rd Class	...	199 7 6	...	268 7 3
Total ..	356,205½	4,80,836 10 9	416,818	4,76,568 6 4

Expenditure.

115. 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 December 1895.				Half-year ending December 1896.				
	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 ...	1,031 51 23½	5,92,736	6 1	10·77	1,046 47 40½	6,71,986	1 4	12·14	
Abstract **B.** Locomotive Expenses ...	Gross Mileage of Engines, 1,527,332 Number of Engines under repair at any one time, 37.	10,43,070	0 6	19·02	Gross Mileage of Engines, 1,519,722 Number of Engines under repair at any one time, 35.	10,75,796	15 11	19·44	
Abstract **C.** Carriage and Wagon Expenses ...	Number of Vehicles under repair at any one time, 257. Number constructed and renewed, 65.	2,95,929	10 2	5·38	Number of Vehicles under repair at one time, 249. Number constructed and renewed, 109.	3,12,593	3 2	5·65	
Abstract **D.** Traffic Expenses ...	Profitable Train Mileage, 1,294,663 Number of Stations, 153.	4,16,527	13 11	7·57	Profitable Train Mileage, 1,275,064 Number of Stations, 160.	4,25,836	7 11	7·70	
Abstract **E.** General Charges ...	Miles 850.	2,90,020	10 11	5·27	Miles 858.	2,93,612	7 5	5·31	
Abstract **G.** Special and Miscellaneous Expenditure	.....	50,070	10 7	·91	.....	52,213	4 10	·94	
	Total...	26,91,355	4 2		Total...	28,32,943	8 7		

Railway Schools.

116. 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	138	101·98	(a)2,276	11	11	538	10	0	1,738	1	11
Arkonam	23	16·50	342	5	2	48	10	8	293	10	6
Katpadi	17	12·03	291	9	9	29	10	6	261	15	3
Jalarpet	56	46·66	991	9	11	332	5	2	659	4	9
Salem	26	19·07	824	1	7	160	13	8	663	3	11
Podanur	55	46·50	1,237	1	9	294	3	0	942	14	9
Renigunta	15	11·33	458	13	1	60	4	0	398	9	1
Gooty	60	51·32	1,052	1	1	347	4	1	704	13	0
Raichur	23	19·24	972	7	5	425	8	11	546	14	6
Railway School Library	...	...	60	0	0	...	...	...	60	0	0
Ry. Grant to Katpadi School (private)	...	...	2	14	5	...	...	...	2	14	5
TOTAL ...	...	...	8,509	12	1	2,237	6	0	6,272	6	1

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

Madras Railway Provident Institution.

117. The following details are given in continuation of those contained in my report for the half-year ending 30th June 1896:—

Number of Subscribers.

	On 30th June 1896.	On 31st December 1896.
Obligatory	3,190	3,299
Voluntary	81	78
TOTAL ...	3,271	3,377

Amount at credit at 31st December 1896:—

	RS.	A.	P.
Obligatory	6,45,900	5	0
Voluntary	57,269	12	9
Bonus	21,166	0	9
Profit and Loss Account...	6,387	4	7
Reserve Fund	8,550	7	0
Subscribers, Old Provident Fund	1,425	10	0
TOTAL...	7,40,699	8	1

The above bonus has been included in the accounts of the half-year under review.

The following Securities were purchased during the half-year:—

Bombay Municipal Sanitary Works	...Rs. 15,000
Bombay Port Trust Debentures	... „ 1,00,000
Madras Municipal Debentures	... „ 2,000
Government Securities	... „ 10,000

Staff.

118. Mr. T. H. Woodliffe, 4th Assistant Auditor, resigned on the 26th December 1896.

119. A list of statements forwarded is herewith annexed.

Yours faithfully,

F. DUNSTERVILLE,
Chief Auditor.

MADRAS RAILWAY COMPANY,
CHIEF AUDITOR'S OFFICE,
MADRAS, *5th March* 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 31st December 1896.

Capital.

Statements Nos. V, VI and XVIII.—The capital expenditure for the half-year is brought out as a credit of Rs. 9,842-6-9 due to the writing back of certain charges. The total capital outlay, including suspense, from the commencement of operations to the end of the half-year under review, is Rs. 7,45,004-1-4 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 Dec. 1895.	Half-year ending Dec. 1896.	Difference.	
	Miles.	Miles.	Miles.	Per cent.
Mean mileage worked	10	10	...	...
Train mileage	16,204	17,090	+ 886	+ 5·47
	No.	No.	No.	
Average number of trains over the whole line daily in both directions	8·81	9·29	+ ·48	...
	Rs.	Rs.	Rs.	Rs.
Gross earnings	83,312	85,104	+ 1,792	+ 2·15
Working expenses	47,979	51,173	+ 3,194	+ 6·66
Net earnings	35,333	33,931	− 1,402	− 3·97
Percentage of working expenses to gross earnings	57·59	60·13	+ 2·54	...
Percentage of net earnings to capital outlay including suspense	5·34	4·55	− ·79	...

The gross earnings per mean mile worked per week averaged Rs. 327 against Rs. 320 and were realized at a cost of 60·13 per cent. against 57·59 per cent. in the corresponding half of the previous year.

The percentage of working expenses to gross earnings for the year 1896 was 59·25 against 56·60 for 1895.

The net earnings amounted to Rs. 33,930-12-4, which gives a return at the rate of 9·11 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 Dec. 1895.	Half-year ending Dec. 1896.	Difference.	
			Amount.	Per cent.
	Rs.	Rs.	Rs.	Rs.
Coaching	20,628	24,221	+ 3,593	+ 17·42
Goods	62,459	60,627	− 1,832	− 2·93
Electric Telegraph	77	106	+ 29	+ 37·66
Steam-boat	...	...	...	...
Sundries	148	150	+ 2	+ 1·35
Total ...	83,312	85,104	+ 1,792	+ 2·15

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.
Second half of 1896 ...	874	371	2,962½	572	288,875	18,507	292,711½	19,450

The receipts from Passengers' luggage amount to Rs. 714.

The Earnings under Horse, Carriage and Dog traffic are Rs. 20.

Parcels for the Public shew a receipt of Rs. 15.

Abstract I.—*Goods Traffic.*—The following is a summary of the tonnage of goods lifted and the earnings therefrom for the half-year ending December 1896.

	Half-year ending December 1896.	
	Quantity.	Earnings.
	Tons.	Rs.
Merchandise, General	22,542	14,819
Military Stores	...	...
Railway materials for construction	1	1
Coal (including Locomotive Revenue)	...	...
Revenue Stores (including Locomotive Coal)	15,449	1,414
Other Goods traffic	...	8
	37,992	16,242
Less outstanding irrecoverable or not recovered	...	...
	37,992	16,242

The following table shews some of the principal commodities carried during the half-year ending December 1896:—

	Half-year ending December 1896.	
	Quantity.	Earnings.
	Tons.	Rs.
Metals—		
Iron	8,103	7,767
Railway Plants, &c.—		
Steel Rails and Fish plates	4,704	3,103
Timber	5,283	2,281

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.	13,558	2 9
Percentage expenses under other Abstract heads	,,	14,312	1 2
Hire of rolling stock, &c...	,,	2,085	0 0

The actual outlay on Engineering maintenance Rs. 13,558 is equal to 36·98 per cent. of the gross receipts as compared with 11·93 per cent. on the Madras Railway.

The sum of Rs. 14,312 paid to Madras Railway Company for charges under other Abstract heads of expenditure is equal to a payment of Rs. 0-15-6 on each of the 14,758 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. 1-11-1 per train-mile,

Yours faithfully,

F. DUNSTERVILLE,

Chief Auditor.

MADRAS RAILWAY COMPANY,
LOCOMOTIVE SUPERINTENDENT'S OFFICE,
PERAMBUR WORKS, *24th March* 1897.

H. C. WEST, ESQ.,
Ag. Agent and Manager,
Madras Railway.

SIR,

I have the honour to submit my report upon the working of the Locomotive and Carriage and Wagon Departments for the half-year ending 31st December 1896.

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.
December 1895	1,527,332	13,20,195	8	7	0	13	9·96
June 1896	1,502,267	13,60,699	8	6	0	14	5·90
December 1896	1,519,722	13,56,990	10	9	0	14	3·44

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

	Half-year ending 31st December 1896 as compared with	
	Preceding half-year.	Corresponding half-year.
Miles run	Increase 1·16	Decrease 0·50
Total cost of Department, including working and repairs of engines and vehicles, loss by exchange, carriage of Revenue stores, &c.	Decrease 0·27	Increase 2·79
Total cost as above per mile	Decrease 1·41	Increase 3·30

4. The total mileage worked is 7,610 less than in the corresponding half-year but 17,455 more than that of the preceding term, while exclusive in each case of the abnormal charges due to the locomotive renewals, the final total cost of working in the half-year now under review exceeds that of the second half of 1895 by Rs. 48,303. In spite, however, of the considerably heavier mileage worked, it exceeds that of the first half of the present year by Rs. 413 only.

Locomotive Engines: Running.

5. In wages and salaries it will be seen there is a reduction both in the total charges and in the cost per mile as compared with the corresponding half-year, the latter amounting to ·27 pies, or a little over one per cent. There is an increase under the head of Cleaners, Water and Fuel Coolies, which has been in great measure brought about by the drought and the necessity that there was, and which still exists, for opening and working standby watering stations which, had the monsoon rains not failed, would not have been required. An additional charge comes under this head in the labour employed for the repairs of pumps and tanks, the cost of which has hitherto been borne by the Engineering Department.—See para. 31.

6. In fuel, it will be observed that there is an increase in quantity used as well as in the cost per mile both in coal and firewood as compared with the corresponding period, but on checking the figures against those of the preceding half-year, a decline is apparent.

7. With regard to this, I can only refer to the explanations given and figures quoted in paragraphs 8 to 30 of my report, dated 14th September last, and repeat that the conditions of working, to which attention was therein drawn, still obtain and necessarily affect very materially both the totals and details of the fuel bill.

8. In fact, as the following figures will shew, the amount of work done by the engines has still further increased :—

—	Half-years ending.			Increase per cent. in half-year	
	December 1895.	June 1896.	December 1896.	Corresponding.	Preceding.
No. of vehicles on a goods train	27·50	28·06	28·57	3·89	1·82
Total gross ton mileage	235,425,158	230,761,651	235,790,100	0·16	2·21
Average weight of a goods train:—					
Freight	112·06	113 04	115·57	3·13	2·24
Dead weight	256·75	262·20	265·73	3·50	1·35
Total ...	368·81	375·24	381·30	3·39	1·61
	As. Pies.	As. Pies.	As. Pies.		
Average cost per mile of fuel	4 4·19	4 9·62	4 7·67	6·67	3·38 Decrease.

and, although there is no doubt the increased loading has necessitated an increase in fuel consumption, this increase only amounts to 3·48 pies per mile which, it may be said, is the price paid for hauling the extra (381·30 — 368·81) = 12·49 tons, of which 3·51 tons is paying load on every goods train.

9. In other words, taking 115·57 tons as the paying load in each goods train, were the same loading now in force as formerly, in every $(\frac{115·57}{3·51}) = 32·92$ trains worked, one extra train would have had to run. Assuming the cost of this extra train to be, as shewn at page 23 of the Capital and Revenue accounts for the half-year, Rs. 2·11 per mile, the saving resulting from the heavier loading may be taken to be Rs. 2·11 — (3·48 pies × 32·92) = Rs. 1·52.

10. As mentioned in para. 18 of my last report it has been necessary to enter into new contracts for wood fuel supplies on the West Coast, and, although in the first instance, advances, amounting to As. 10 per ton, were demanded, I finally succeeded in closing with the contractors upon terms which are As. 4 only over the rates hitherto in force.

11. The reduction in rates on the Salem and Jolarpet Divisions, to which reference is also made in the same paragraph, enabled the general issue rates to remain undisturbed and the issue rate of wood has consequently continued the same for the half-year, *viz.*, Rs. 5-0-8 per ton, this being, however, an advance upon the rate for the corresponding term, (when we were able to issue at Rs. 4-12-2 per ton), of As. 4-6 per ton.

12. In paras. 31 and 32 of my report for the first half of last year I referred to a consignment of Jherria coal which, as you are aware, was obtained from Calcutta. A good deal of correspondence has since ensued upon this subject and, as has been reported, the coal was not found of sufficiently good quality for mail and fast passenger trains. It is a fairly good steaming coal, but it contains such a large quantity of ash and dirt as to render it unsuitable, excepting for slow stopping trains, as during the continuous runs of upwards of 40

miles which the mail trains make, the fires and ash-pans become so choked that it is not possible to maintain steam. In fact, engines burning this coal have to stop and clean fires after a maximum run of about 25 miles.

13. The greater part of this coal has now been used up on the mixed trains and the question of obtaining from Messrs. Badsha Saib & Co., who supplied it, a rebate in consequence of its not fulfilling the conditions under which the purchase was made, is still under correspondence : however this may end, it is clear that coal of this sample will not answer.

14. Arrangements are being made, in view of the approaching termination of the existing contract with Mr. Waljee Laljee, to test two other samples of Bengal coal that have been offered at favourable rates, 170 tons of Jardine Navigation coal having been purchased from Messrs. Binny & Co., and a further sample of 100 tons of Shampore coal having been ordered from Messrs. Henderson & Co. of Calcutta.

15. I am arranging that a series of experiments shall be conducted with these coals, so that when in October next, the question of further coal contracts has to be considered, we may be in a position to say whether either of them is likely to suit or do better than the Singareni coal.

16. With regard to the Singareni coal, I can only repeat that if we could ensure delivery of this in better condition and at a cheaper rate, I am of opinion no question could arise as to its continuance as a fuel on this Railway. It is, when fresh and undamaged, an excellent locomotive coal, and with the opening of through railway communication with the Mines on the completion of the Bezwada-Madras Line, we ought to be in nearly, if not actually, as favourable a position as regards our coal supply as are our neighbours, the G. I. P. and S. M. Railways, at present.

17. In oil, tallow and waste, an increase both in total cost and in cost per mile is noticed, and this is partly attributable to the enhanced and abnormal price of castor-oil, which has risen to As. 1-10 per pound, as compared with As. 1-8, the rate in the corresponding term, and partly to the inclusion in this head of account of the cost of all material issued for the repairs and maintenance of pumps, tanks and water-lifting apparatus—See para, 31.

18. The total cost of locomotives running has risen, as compared with the corresponding term, by 4·49%, but is less than that for the preceding half-year by 0·49%.

Locomotive Engines: Repairs.

19. Forty-seven engines passed through the shops during the period under consideration as compared with fifty dealt with in the corresponding half-year, two others of the K C_2 engines, making eight in all now at work, having also been erected and handed over for traffic. A slight increase is noticeable under this head of account due to a rush that was made at the close of the year to increase the outturn from the shops in anticipation of extra famine traffic which it was thought would arise. A material reduction would have appeared under this head, had it not been for this cause and for a re-adjustment which was made in sundry labour charges as explained below in para. 28.

20. The extension of the Erecting Shop is being proceeded with, and I look for considerable relief in dealing with locomotive repairs when this is finished.

21. Two of the new K C_2 passenger engines were altered and fitted for wood burning and have been posted for working the passenger trains on the Bangalore Branch, and they are doing splendid work.

22. There can be no question but that in this new type of locomotives the Company possesses engines of a most serviceable and useful description, and I shall be very glad when the whole twenty engines, which it has been decided to obtain, are at work.

23. The question as to the design to which others of the Company's locomotive stock shall be renewed has not yet been decided. The matter has not, however, been forgotten, and

I propose ere long to again address you upon it. One point which will more or less affect it, is the final decision as to the administration and working of the Bezwada-Madras Railway, for, if it is settled that the loop lines from Rayapuram to Central Station and to the Beach shall be constructed and worked by this Company, it will probably be necessary to increase the stock of tank engines which, for the local service which would then, I presume, be introduced, would be the most useful and suitable engines. This could probably be more readily effected by renewing, as tank engines, a certain number of the older pattern and lighter description of tender engines on somewhat the same lines as it has been decided shall be done in the case of the two bogie tank engines now under construction for the Ennur Branch.

Carriages and Wagons: Running.

24. A trifling increase occurs under this head of account due, partly to the increase in the cost of oil to which reference has already been made in para. 17, and partly to the fact that during the absence on leave of two of the Locomotive Foremen, Cuddapah and Raichur Stations have been worked by Carriage Examiners in charge under the orders of the adjoining Foremen.

25. Arrangements were made, when first the price of castor oil increased, to introduce a mineral oil supplied by the Vacuum Oil Company which was offered at about the same rate as formerly ruling for castor oil. This oil is not, however, suitable for locomotive purposes, and for some time its use was confined entirely to the wagon stock, but as castor oil continued to rise in price, I extended it to the passenger stock also, and, though by no means so satisfactory a lubricant as castor oil, it does fairly well. Apart from its very disagreeable odour, and very dirty appearance, it does not seem to have the same lasting and lubricating properties as has castor oil. So long as everything is all right it seems to do fairly well, but if once it becomes heated beyond a certain temperature, either by an axle running warm or even by exposure to a hot sun, it seems to lose its viscidity and run away like water.

Carriages and Wagons: Repairs.

26. 2,596 vehicles were repaired during the half-year, and the following renewals at the cost of Revenue were also executed:—

Baggage van	1
Covered goods wagons	60
Ballast wagons	9
	70

the figures for the half-year ending 31st December 1895 being

Repairs		2,676
Renewals:—		
Covered goods wagons	50	
Ballast wagons	10	
Horse-box	1	
	61	

27. Fifty-two of the H. S. O. G. wagons had their sides raised at a cost of Rs. 3,820, and an abnormal expenditure on account of the repairs of the vehicles damaged at the unfortunate accidents at Lakkiti, the 144 mile, Bangalore Branch, and at Mallapuram, was also further incurred.

28. A portion of the increase is also due to the re adjustment of the sundry labour charges which, as you will remember, was explained at the Official Meeting of the 8th December 1896, and to which reference is made in note (*f*) at page 31 and notes (*a*) and (*b*) at page 35 of the current half-year's Establishment Rolls.

2 Composites.
10 III class carriages.
25 Timber Trucks.
1 Travelling oil tank.
1 Support wagon for 15-ton crane.

29. Thirty-nine vehicles, as shewn in the margin, were constructed at the cost of Capital. The ten third class carriages form part of the new stock to be constructed for the Ennur Line and the remaining thirteen vehicles of the total of twenty-three finally sanctioned are in hand.

30. It has not yet been possible to commence actual work upon the two bogie composites which are to be built under this sanction though timber and other material are being prepared, and the construction of the carriages will be put in hand so soon as the underframes and other material, for which Indents have been submitted to England, are received.

General.

31. In accordance with the resolution of the Special Meeting held on the 28th February 1896, the responsibility for the execution of all repairs to weighing machines, weigh bridges, engine and carriage turntables, pumps, tanks and other water-lifting apparatus and, generally, all station machinery, was transferred to this Department from the 1st July 1896, it being agreed that the charges incurred should be distributed as follows:—

Locomotive Department to bear the cost of maintenance and repairs of all tanks, water columns, hydrants and piping connected therewith.

Engineering Department to bear the cost of maintenance and repairs of all engine and wagon turntables, cranes, traversers and weigh bridges.

Traffic Department to bear the cost of maintenance and repairs of all platform weighing machines.

32. The principle is, no doubt, a perfectly correct one, since this Department is naturally in a better position to deal with the repairs of machinery of all kinds, but the effect of the change has necessarily been to bring into the Locomotive Revenue abstracts the whole of the salary of the covenanted Weighing Machine Inspector hitherto borne by the Traffic Department, as well as the cost of the maintenance of the pumps, tanks, &c., which had, until now, formed a debit against the Engineering Department.

33. Twenty-two engines and ninety-seven carriages and other passenger stock have been fitted with the vacuum brake, and the brake is being used daily on the North-West Mails and on the fast pick-up locals between Madras and Arkonam.

34. It is also in contemplation to introduce the brake on the mails and passenger trains on the Bangalore Branch as soon as possible, and this will probably be done in the course of the next few weeks, or so soon as a sufficiently large number of vehicles have been fitted.

35. An indent for gearing for 200 vehicles has been submitted and steps are being taken to manufacture and prepare in advance as much as possible of the brake rigging, so that no delay may occur in completing the fitting of vehicles so soon as the English material arrives.

36. The Pintsch gas has been introduced into all the more important trains, but until the extra store holders and other materials for which application has been made to the Board are received, it will not be possible to light the local and branch trains, since the carriages working on them do not come to Madras and cannot, of course, therefore be charged with gas.

37. The gas works have worked exceedingly well, and the kerosine oil which is now being exclusively used has given very good results.

38. To the travelling public the introduction of the new lighting is unquestionably a very great boon, and I believe I am correct in stating that the change has resulted in a saving in the general cost of lighting as hitherto met by the Traffic Department.

39. The new Railway Church which the Company has been good enough to provide for the use of the Staff at Perambur was completed and consecrated by His Lordship the Bishop

of Madras on the 5th October 1896. The building is a handsome addition to the Company's property in Perambur, and the kindness of the Board in sanctioning what has, for so many years, been a pressing want has earned the hearty thanks of the considerable Railway population resident in the neighbourhood.

Staff.

40. Mr. E. E. Lefeburé, First Assistant Locomotive Superintendent, who proceeded to England on furlough on 6th January 1896, resigned the Company's service from 1st August 1896, and in consequence of this, Mr. H. J. Stanley, the Second Assistant Locomotive Superintendent, was recommended for promotion to First Assistant in succession to him.

41. Mr. Percy Gwynedd Porteous, a gentleman who has received an engineering training in Messrs. Dubs & Co.'s Locomotive Works and in the Workshops of the Caledonian Railway, Glasgow, and who subsequently came out to India in private employ, was appointed Second Assistant Locomotive Superintendent on probation for six months in place of Mr. Stanley, recommended for promotion.

42. Messrs. A. C. Scriven and F. Corney, who were appointed by the Board, respectively, as Boilermaker and Carriage Painter, arrived in India and started work on the 3rd August 1896.

43. Messrs. E. Driver and W. Barefoot, Locomotive Foremen, and Mr. R. B. Ward, Erecting Shop Foreman, whose departure to England, each on six months' leave, was recorded in my last report, have each been granted an extension of six months by the Board, and will not return to India till late in the current half year.

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

LAWRENCE ASYLUM PRESS.

20th March 1897.

0	13	6·30

C. E. PHIPPS,
Locomotive Superintendent.

MADRAS RAILWAY.

Abstract of Expenditure for working and maintaining Locomotive Engines, Carriages and Wagons for the Half-year ending 31st December 1896.

LOCOMOTIVE DEPARTMENT.

LOCOMOTIVE ENGINES—Running.

Half-year ending	Total Engine Miles worked.	Wages and Salaries: Drivers and Firemen.			Wages and Salaries: Cleaners, Water and Fuel Coolies.			Wages and Salaries: Total.			Wages and Salaries: Cost per Mile.			Coal and Patent Fuel: Total Consumption. Quantity.	Coal and Patent Fuel: Total Consumption. Cost.			Coal and Patent Fuel: Per Mile. Quantity.	Coal and Patent Fuel: Per Mile. Cost.		
		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Cwts.	Rs.	A.	P.	Lbs.	Rs.	A.	P.
Dec. 1895 ...	1,527,332	1,54,150	12	3	34,146	5	3	1,88,297	1	6	0	1	11·67	294,661	2,16,919	6	5	43·96	0	4	7·48
June 1896 ...	1,502,267	1,46,433	6	9	34,928	13	3	1,81,362	4	0	0	1	11·18	317,297½	2,29,486	8	10	47·05	0	4	10·33
Dec. 1896 ...	1,519,722	1,45,084	2	0	40,134	9	1	1,85,218	11	1	0	1	11·40	330,798	2,31,272	7	6	48·93	0	4	10·64

Half-year ending	Firewood: Total Consumption. Quantity.	Firewood: Total Consumption. Cost.			Firewood: Per Mile. Quantity.	Firewood: Per Mile. Cost.			Average Cost per Mile of Coal, Patent Fuel and Firewood.			Oil, Tallow, Waste, &c.: Actual Cost.			Oil, Tallow, Waste, &c.: Cost per Mile.			Total Cost.			Cost per Mile.		
	Lbs.	Rs.	A.	P.	Lbs.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Dec. 1895 ...	93,302,270	1,98,267	5	2	120·13	0	4	1·01	0	4	4·19	24,153	10	8	0	0	3·04	6,27,637	7	9	0	6	6·90
June 1896 ...	92,826,500	2,21,323	0	7	124·28	0	4	8·81	0	4	9·62	26,834	15	10	0	0	3·43	6,59,006	13	3	0	7	0·23
Dec. 1896 ...	93,062,180	2,09,389	14	6	122·05	0	4	4·72	0	4	7·67	29,907	11	6	0	0	3·78	6,55,788	12	7	0	6	10·85

LOCOMOTIVE ENGINES—Repairs.

Half-year ending	Total Engine Miles worked.	Cost of Material.			Cost of Wages of Workmen.			Total Cost.			Cost per Mile.		
		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Dec. 1895 ...	1,527,332	1,32,458	15	3	1,33,895	8	1	2,66,354	7	4	0	2	9·48
		80,945	7	11	1,31,561	6	0	2,12,506	13	11	0	2	2·71
June 1896 ...	1,502,267	1,29,317	8	1	1,32,189	11	0	2,61,507	3	1	0	2	9·42
		80,809	5	8				2,12,999	0	8	0	2	3·22
Dec. 1896 ...	1,519,722	1,25,082	1	3	1,41,826	15	11	2,66,909	1	2	0	2	9·72
		78,671	13	2	1,40,484	14	8	2,19,156	11	10	0	2	3·69

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.

LOCOMOTIVE ENGINES—Gross Cost of Running and Repairs.

Half-year ending	Running, Total Cost.			Repairs, Total Cost.			Proportion of Supervision and Office Expenses.			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.	Rs.	A.	P.	Rs.	A.	P.
Dec. 1895 ...	6,27,637	7	9	2,66,354	7	4	66,725	9	1	9,60,717	8	2	16,994	8	6	**9,43,722**	**15**	**8**	**0**	**9**	**10·63**
				2,12,506	13	11				9,06,869	14	9				**8,89,875**	**6**	**3**	**0**	**9**	**3·87**
June 1896 ...	6,59,006	13	3	2,61,507	3	1	68,218	3	2	9,88,732	3	6	18,741	14	9	**9,69,990**	**4**	**9**	**0**	**10**	**3·97**
				2,12,999	0	8				9,40,224	1	1				**9,21,482**	**2**	**4**	**0**	**9**	**9·77**
Dec. 1896 ...	6,55,788	12	7	2,66,909	1	2	69,810	14	9	9,92,508	12	6	24,344	6	1	**9,68,164**	**6**	**5**	**0**	**10**	**2·22**
				2,19,156	11	10				9,44,736	7	2				**9,20,412**	**1**	**1**	**0**	**9**	**8·28**

CARRIAGE AND WAGON DEPARTMENT.

CARRIAGES AND WAGONS—Running.

Half-year ending	Total Engine Miles worked.	Cost of Material.			Cost of Wages of Workmen.			Total Cost.			Cost per Mile.		
		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Dec. 1895 ...	1,527,332	11,556	10	11	18,823	2	8	30,379	13	7	0	0	3·83
June 1896 ...	1,502,267	12,196	1	10	18,869	7	8	31,065	9	6	0	0	3·97
Dec. 1896 ...	1,519,722	11,632	5	7	20,067	15	9	31,700	5	4	0	0	4·00

CARRIAGES AND WAGONS—Repairs.

Half-year ending	Cost of Material.			Cost of Wages of Workmen.			Total Cost.			Cost per Mile.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Dec. 1895 ...	1,25,069	2	11	88,139	0	11	2,13,208	3	10	0	2	2·80
June 1896 ...	1,45,427	14	2	88,206	5	10	2,33,634	4	0	0	2	5·86
Dec. 1896 ...	1,29,098	6	6	1,04,364	7	0	2,33,462	13	6	0	2	5·49

CARRIAGES AND WAGONS—Gross Cost of Running and Repairs.

Half-year ending	Running, Total Cost.			Repairs, Total Cost.			Proportion of Supervision and Office Expenses.			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.	Rs.	A.	P.	Rs.	A.	P.
Dec. 1895 ...	30,379	13	7	2,13,208	3	10	22,241	13	10	2,65,829	15	3	4,809	9	7	**2,61,020**	**5**	**8**	**0**	**2**	**8·81**
June 1896 ...	31,065	9	6	2,33,634	4	0	19,241	0	5	2,83,940	13	11	5,541	7	8	**2,78,399**	**6**	**3**	**0**	**2**	**11·58**
Dec. 1896 ...	31,700	5	4	2,33,462	13	6	19,690	4	2	2,84,853	7	0	7,483	8	3	**2,77,369**	**14**	**9**	**0**	**2**	**11·04**

SUMMARY—*Total Gross Cost of Working the Locomotive and Carriage and Wagon Department.*

Half-year ending	Locomotives, Total Cost.			Carriages & Wagons, Total Cost.			Total Cost.			Cost per Mile.			Loss by Exchange and Carriage of Revenue Stores.			Final Total Cost of Working.			Final Total Cost per Mile.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
December 1895 ...	9,43,722	15	8	2,61,020	5	8	12,04,743	5	4	0	12	7·45	1,15,452	3	3	**13,20,195**	**8**	**7**	**0**	**13**	**9·96**
	8,89,875	6	3				11,50,895	11	11	0	12	0·63	85,475	15	5	**12,36,371**	**11**	**4**	**0**	**12**	**11·42**
June 1896 ...	9,69,990	4	9	2,78,399	6	3	12,48,389	11	0	0	13	3·55	1,12,309	13	6	**13,60,699**	**8**	**6**	**0**	**14**	**5·90**
	9,21,482	2	4				11,99,881	8	7	0	12	9·35	84,379	7	11	**12,84,261**	**0**	**6**	**0**	**13**	**8·14**
December 1896 ...	9,68,164	6	5	2,77,369	14	9	12,45,534	5	2	0	13	1·36	1,11,456	5	7	**13,56,990**	**10**	**9**	**0**	**14**	**3·44**
	9,20,412	1	1				11,97,781	15	10	0	12	7·33	86,892	10	5	**12,84,674**	**10**	**3**	**0**	**13**	**6·30**

PERAMBUR WORKS,
20th March 1897.

C. E. PHIPPS,
Locomotive Superintendent.

Private.

MADRAS RAILWAY COMPANY,

TRAFFIC MANAGER'S OFFICE,

MADRAS, 22*nd March* 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 31st December 1896.

2. **OPEN MILEAGE**.—The open mileage (including the Kolar Gold Fields and Madras-Ennur Railways worked by the Madras Railway Company) on the 31st December 1896 was the same as on the 30th June 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 1895, with the addition of the train service over the Madras-Ennur Railway. A revised train service was introduced on this section from the 16th August 1896, it having been found that the traffic did not justify the number of trains which were run when the line was first opened for traffic.

4. **RATES AND FARES**.—There was no alteration in the passenger fares for the half-year ending 31st December 1896. They are shown below:—

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

But the third class fares for distances up to 25 miles are based on a lower mileage rate to meet the conditions of the short distance traffic.

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

Commodities.	Conditions.	Rates per 27 mds. per mile.	Alterations.	Rates per 27 mds. per mile.	Remarks.
		JULY.			
Cotton full pressed ex-Adoni to Tirur.	2nd Class ...	13·61 pies.	Cotton Full pressed ex-Adoni to Tirur.	9 pies ...	Traffic to Aleppy Sea competition *via* Madras.
Jaggree from Tinnevelly to Arcot *via* Erode	In wagon loads of 270 mds. at O.R.	5·46 pies.	In wagon loads of 324 mds. at O.R. from Tinnevelly to Arcot *via* Erode.	4·70 pies ...	Competitive traffic.
Bridge Work, Girder material.	20 feet and under ...	13·61 pies.	Special rate for Bezwada-Madras Railway material to Gudur and Nellore *via* Renigunta.	6 pies ...	For Bezwada-Madras Railway material only
Do do ...	Exceeding 20 feet...	18 pies.			
Permanent Way material.	1st Class ...	10 pies.			
		SEPTEMBER.			
Piece goods press packed from Bombay to Muddanuru.	2nd Class ...	13·61 pies.			
Twist press packed to 25 lbs. per cubic feet.	2nd Class ...	do	Piece goods and Twist press packed from Bombay to Muddanuru *via* Raichur.	10·28 pies ...	In competition with the longer route by S. M. Ry. *via* Poona.
Do. do. to over 25 lbs.	3rd Class ...	18 pies.			

Commodities.	Conditions.	Rates per 27 mds. per mile.	Alterations.	Rates per 27 mds. per mile.	Remarks.
		OCTOBER.			
Woollen Piece Goods press packed Dadar to Madras *via* Raichur.	2nd Class O.R. ...	13·61 pies.	If booked from Dadar to Madras *via* Raichur.	9·23 pies.	In competition with the longer route by S. M. Ry. *via* Poona.
	3rd Class C.R. ...	18 pies.			
Superphosphate Manure.	In wagon loads of 270 mds. at O.R. for distances of 300 miles and above in local booking only.	6 pies.	In wagon loads of 270 mds. at O. R. for distances of 200 up to 300 miles.	4·53 pies.	Competitive traffic.
			Do. do. for distances of 300 miles and over.	4 pies.	
Hides from Vizianagram to Madras.	In consignments of 200 mds. at O.R.	8 pies.	In any quantity for traffic from Vizianagram to Madras *via* Bezwada and Guntakal at O. R.	6·06 pies.	In competition with canal route.
Grain and Seeds.	At O.R. Special ...	8·53 pies.	Between Cumbum and Yerraguntla *via* Guntakal at O. R.	6·60 pies.	In competition with road.
	Between Venikonda and Madras.				
Grain and Seeds, common.	O.R. Special ..	4·89 pies ...	In any quantity for traffic between Venikonda and Madras *via* Guntakal at O. R.	4·08 pies.	In competition with canal.
Saltpetre ...	1st Class ...	10 pies ...			
Ghee ...	2nd Class ...	13·61 pies ...			
Iron, Brass and Copper manufactured or unmanufactured.	1st and 2nd class ...	10 and 13·61 pies.			
Cloth ...	2nd Class ..	13·61 pies ...	Do. do. ...	4·50 pies.	
Twist Cotton .	2nd Class ...	13·61 pies ...			
Tamarind ...	Special ...	8·53 pies ...			
Kerosine Oil ...	O.R. 1st Class ...	10 pies ...			

5. TRAFFIC TRAIN MILES.—The traffic train mileage for the December half-years of 1895 and 1896 is shown in the following table :—

Allocation.	Description of train.	December 1895.			December 1896.			Total.
		Madras Railway.	K. G. F. Railway.	Total.	Madras Railway.	K. G. F. Railway.	Madras-Ennur Railway.	
		Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Coaching	Mail ...	323,354	...	323,354	322,736	...	...	322,736
	Passenger ...	169,496	...	169,496	174,924	...	10,416	185,340
	Special ...	6,306	...	6,306	2,927	...	...	2,927
	Troops ...	5,531	...	5,531	2,943	...	...	2,943
Mixed ...	Ordinary ...	614,816	14,762	629,578	613,415	14,720	2,928	631,063
Goods ...	Ordinary ...	40,307	...	40,307	32,828	...	896	33,724
	Extra ...	60,692	1,364	62,056	40,209	1,558	...	41,767
	Ballast Trains for construction.	4,204	...	4,204	276	...	...	276
	Light Engines	27,652	78	27,730	24,487	84	96	24,667
	Maintenance .	13,800	...	13,800	8,930	728	422	10,080
	Fuel ...	12,301	...	12,301	19,541	...	...	19,541
	Total ...	1,278,459	16,204	1,294,663	1,243,216	17,090	14,758	1,275,064

Excluding maintenance and fuel mileage the total train mileage of the Madras Railway was 1,214,745 against 1,252,358 for the corresponding period of 1895 or a decrease of 37,613 miles, equivalent to 3·00 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 18,805 occurs in Coaching and 35,012 in Goods train mileage on the Madras Railway, and an increase of 431 in Coaching and a decrease of 273 in Goods on the K. G. F. S. Railway.

6. GROSS AND NET TRAFFIC FOR YEARS 1887 to 1896.—The following table is designed to show the gross traffic receipts, total expenses, net receipts, number of passengers, tonnage of goods, traffic expenses, and percentage of traffic expenses on gross receipts, for 10 years ending 31st Dec. 1896.

Years.	Gross Receipts.	Total Expenses.	Net Receipts.	No. of Passengers carried including Troops and Police.	Tons of Goods carried including Railway material and Revenue stores.	Expenses of Traffic Department.	Percentage of Traffic expenses on Gross Receipts.
	Rs.	Rs.	Rs.	No.	No.	Rs.	Rs.
1887 ...	81,72,535	52,92,507	28,80,028	7,021,631½	996,352	7,70,612	9·4
1888 ...	85,31,053	50,09,408	35,21,645	7,789,690½	1,088,774	8,00,613	9·3
1889 ...	91,10,895	53,72,473	37,38,422	8,528,953	1,097,441	7,99,976	8·7
1890 ...	95,06,134	49,84,654	45,21,480	8,433,081	1,193,415	8,20,687	8·6
1891 ...	93,44,688	54,38,158	39,06,530	8,240,222½	1,177,910	8,54,582	10·9
1892 ...	96,24,670	53,32,537	42,92,133	8,889,950	1,118,857	8,43,744	8·8
1893 ...	1,05,05,036	50,83,294	54,21,742	9,826,256	1,156,894	8,99,985	8·6
1894 ...	1,03,21,012	53,73,150	49,47,862	10,160,062½	1,076,542	8,69,955	8·4
1895 ...	1,12,08,407	53,29,676	58,78,731	8,983,791	1,129,221	8,31,875	7·4
1896 ...	1,08,80,251	54,94,961	53,85,290	9,723,265	1,117,213	8,61,827	7·9

7. GROSS AND NET EARNINGS.—Compared with the corresponding period of 1895 the earnings from all sources for the half-year ended December 1896 were Rs. 54,11,851 against Rs. 55,01,371 or a decrease of Rs. 89,520 equivalent to 1·63 per cent.

The net earnings were Rs. 26,60,935 against Rs. 28,53,830 or 49·17 per cent. of Revenue.

The working expenses were Rs. 27,50,916 against Rs. 26,47,541 or 50·83 per cent. of Revenue.

The average receipt per train mile was Rs. 4·35 against Rs. 4·30.

8. The increases and decreases in the gross earnings are shown in the following table :—

Heads.	Earnings.		Increase.	Decrease.	Net Decrease.
	Half-year ending Dec. 1895.	Half-year ending Dec. 1896.			
	Rs.	Rs.	Rs.	Rs.	Rs.
Passengers	19,50,295	18,94,155	...	56,140	
Troops and Police ...	1,01,736	58,347	...	43,389	
Passengers' luggage ...	77,499	70,267	...	7,232	
Parcels	1,47,925	1,44,520	...	3,405	
Parcels (Revenue) ...	2,568	2,844	276	...	
Horses, carriages and dogs. ...	51,440	41,361	...	10,079	
Special trains	11,673	1,280	..	10,393	
Goods	29,63,744	29,67,007	3,263	...	
Goods (Revenue) ...	59,918	62,662	2,744	...	
Railway material ...	4,089	1,610	...	2,479	
Live stock	5,474	14,783	9,309	...	
Rents and demurrage ...	7,180	9,900	2,720	...	
Miscellaneous	3,678	4,974	1,296	...	
Haulage of postal vans ...	27,023	23,872	...	3,151	
Sundries	77,194	1,03,829	26,635	...	
Telegraph	9,935	10,440	505	...	
Total ...	55,01,371	54,11,851	46,748	1,36,268	89,520

9. The net increase in the working expenses is explained, as follows :—

Heads.	Expenditure.		Increase.	Decrease.	Net Increase.
	Dec. 1895.	Dec. 1896.			
	Rs.	Rs.	Rs.	Rs.	Rs.
Permanent Way	5,83,099	6,45,543	62,444	...	
Locomotive	10,29,076	10,51,453	22,377	...	
Repairs to carriages & wagons.	2,91,120	3,05,538	14,418	...	
Traffic	4,09,760	4,16,454	6,694	...	
General charges	2,85,229	2,86,821	1,592	...	
Special and miscellaneous ...	49,257	45,107	...	4,150	
Total ...	26,47,541	27,50,916	1,07,525	4,150	1,03,375

10. PASSENGER TRAFFIC.—The receipts from passengers (exclusive of troops and police) were Rs. 18,94,153 against Rs. 19,50,295, or a decrease of Rs. 56,142 equivalent to 2·88 per cent. The lowest class contributed in money 89·75 per cent. against 89·05 per cent. and in number 98·85 per cent. against 98·67 per cent.

11. 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.
31st Dec. 1896	92,261	1,01,941	16,99,951	18,94,153
Do. 1895	1,07,506	1,06,013	17,36,776	19,50,295
Increase in 1896	...	...	...	...
Decrease in 1896	15,245	4,072	36,825	56,142
Increase per cent.	...	...	...	...
Decrease do.	14·18	3·84	2·12	2·88

12. The numbers carried in each class were :—

Half-years ending	First class.	Second class.	Third class.	Total.
	No.	No.	No.	No.
31st Dec. 1896	12,272½	42,830½	4,727,778½	4,782,881½
Do. 1895	11,537½	47,033½	4,327,774	4,386,345
Increase in 1896	735	...	400,004½	396,536½
Decrease in 1896	...	4,203	...	...
Increase per cent.	6·37	...	9·24	9·04
Decrease do.	...	8·94	...	...

13. 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 ended 31st Dec. 1896.	0·26	0·89	98·85	148	94	33
Do. do. 1895.	0·26	1·07	98·67	175	99	37

14. 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 ended 31st Dec. 1896	7 8 3	2 6 1	0 5 9
Do. do. 1895	9 5 1	2 4 1	0 6 5

15. The following statement shows numbers of and receipts from Troops and Police for the two half years :—

Half-years.	First class.		Second class.		Third class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
31st Dec. 1886 ...	587½	4,973	5,678	17,192	28,970½	36,182	35,236	58,347
Do. 1895 ...	546½	8,484	9,714½	39,598	31,439	53,654	41,700	1,01,736
Increase in 1896 ...	41	...	...	...	...	...	...	...
Decrease in 1896 ...	...	3,511	4,036½	22,406	2,468½	17,472	6,464	43,389
Increase per cent ...	7·50	...	...	...	...	...	...	...
Decrease per cent. ...	...	41·38	41·55	56·58	7·85	32·56	15·50	42·65

16. In the first class Passenger traffic there was an increase of 6·37 per cent. in number and a decrease of 14·18 per cent. in money. In the 2nd class there was a decrease of 8·94 per cent. in number and of 3·84 per cent. in money. In the 3rd class there was an increase of 9·24 per cent. in number and a decrease of 2·12 per cent. in money. The average sum paid by a third class passenger by *all* trains was annas 5-9 against annas 6-5. The average value by Mail trains was annas 11-10 against annas 12-7 and the average value by Other trains was annas 4-10 against annas 5-3.

The percentage of numbers carried by the Mail and Other trains remained the same as in the corresponding half year of 1895 *viz.*, 16 and 84 respectively.

The increase in numbers of First class passengers is principally due to the Ennur line traffic. Reference to previous reports will show that the First and Second class traffic for the half-year ending December 1895 was abnormal and that the receipts under this head compare favourably with other half-years.

The decrease under troops and police is due to the Chitral Expedition having abnormally swelled the receipts under this head during the corresponding half-year. During that half-year also a number of native princes from Northern India travelled by special trains to the Nilgiri Hills which accounts for the falling off under the heads of Special Trains and Passengers Luggage. The decrease under haulage of Post Office Vans is due to the number of special trains which were run for the Post Office owing to the breaches on the G. I. P. Railway in the half-year ending December 1895.

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

Half-years.	First class.		Second class.		Third class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
31st Dec. 1896...	2,718	3,524	11,031	4,039	216,295	9,640	230,044	17,203
Do. 1895 .	1,821	3,280	14,907	4,889	185,002	8,509	201,730	16,678
Increase in 1896...	897	244	...	...	31,293	1,131	28,314	525
Decrease in 1896..	...	...	3,876	850	...	...	...	...

18. 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 second half-years of 1895 and 1896, is shown in the following table :—

Between	Half-year ending Dec. 1895.	Half-year ending Dec. 1896.	Increase per cent.	Decrease per cent.
Madras to Jalarpet ...	1,450,915	1,620,733	11·70	...
Tirupattur to Podanur ...	555,027	581,840	4·83	...
Bangalore Branch ...	437,220	502,413	14·91	...
Nilgiri Branch ...	229,712	240,486	4·69	...
Madukarai to Calicut ...	590,875	592,997	0·36	...
Tiruttani to Cuddapah ...	443,630	502,682	13·31	...
Krishnapuram to Raichur ...	435,394	470,333	8·02	...
Total ...	4,142,773	4,511,484	8·90	...

The Chief Auditor will submit the usual statement shewing details of the Sectional third class traffic.

19. The numbers carried and receipts derived from the 3rd class traffic since 1885 (exclusive of Troops and Police) will be seen from the figures below :—

Years.	Number.	Rs.
1885	5,438,030	22,60,400
1888	7,675,843½	25,83,121
1889	8,417,122	27,49,477
1890	8,317,964½	28,18,150
1891	8,125,572½	26,73,797
1892	8,747,086¼	27,65,079
1893	9,674,401	29,95,072
1894	10,003,099	30,88,196
1895	8,799,084	35,66,286
1896	9,542,129	34,86,792

As shewn in the last report the reduction in the short distance fares though it has increased the number of passengers has not done so to a sufficient extent to recoup the reduced payment.

20. PARCELS.—Compared with the corresponding period of 1895 there was an increase of 3·66 per cent. in number and a decrease of 2·30 per cent. in money. The average receipt per parcel was Rs. 0·79 against Rs. 0·84. The decrease in the local parcels traffic was due to the reduction in the traffic in cut flowers, fruits, and betel nuts on the South West Line, and Indigo traffic on the North West Line owing to want of rain.

21. The following table shows the number and revenue derived from parcels for the December half-years of the last ten years :—

Half-years ending December.	Number. Local.	Number. Foreign.	Receipts. Local.	Receipts. Foreign.	Total. Number.	Total. Receipts.
			Rs.	Rs.		Rs.
1887	68,105	36,334	71,793	38,709	104,439	1,10,502
1888	72,523	43,760	79,248	43,624	116,283	1,22,872
1889	75,506	51,251	78,504	43,548	126,757	1,22,052
1890	78,803	54.935	76,235	46,952	133,738	1,23,187
1891	69,218	50,688	74,587	44,056	119,906	1,18,643
1892	78,515	55,926	84,815	49,280	134,441	1,34,095
1893	93,638	62,524	99,415	50,007	156,162	1,49,422
1894	108,140	75,382	1,10,192	56,864	183,522	1,67,056
1895	91,015	84,720	85,755	62,170	175,735	1,47,925
1896	89,228	92,931	82,027	62,493	182,159	1,44,520

22. GOODS TRAFFIC—Compared with the corresponding period of 1895, the receipts from Goods Traffic (exclusive of railway material and revenue stores) were Rs. 29,67,007 against Rs. 29,63,744 or an increase of 0·11 per cent., the tonnage being 456,924 against 431,436, or an increase of 5·91 per cent. The average sum earned per ton carried was Rs. 6·49 against Rs. 6·87, and the average sum per ton per mile was 8·47 pies against 8·38 pies. The fluctuations in the commodities which contributed to this result are shewn in para 25.

23. The following table is designed to show the weight and revenue of the public goods traffic for the last ten years :—

Years.	Goods traffic exclusive of Madras Railway material and Revenue stores.	Government stores and Foreign Railway material.	For the Public. Weight.	For the Public. Receipts.
	Rs.	Rs.	Tons.	Rs.
1887	44,18,429	3,03,778	688,376	41,14,651
1888	44,23,337	84,748	717,803	43,38,589
1889	49,78,001	2,13,405	763,428	47,64,596
1890	51,37,890	2,35,771	830,527	49,02,119
1891	53,11,395	2,34,601	840,032	50,76,794
1892	54,68,885	1,07,988	795,128	53,60,897
1893	61,18,911	78,337	878,194	60,40,074
1894	58,10,094	86,071	815,834	57,24,023
1895	60,81,879	77,109	861,067	60,04,770
1896	59,01,797	1,11,687	865,497	57,90,110

24. Statement showing earnings from and tonnage of goods traffic for the December half-years of 1895 and 1896 :—

Details.	Half-year ending Dec. 1895.	Half-year ending Dec. 1896.
Receipts from goods ... ... Rs.	29,63,744	29,67,007
Tonnage of goods ... ... Tons	431,436	456,924
Average receipt, per ton carried ... ... Rs.	6·87	6·49
Do. per ton per mile ... ... Pies	8·38	8·47

25. The increase and decrease in each important commodity composing the goods traffic for half-year ending 31st December 1896, is detailed in the following statement :—

Description.	Increase. Tons.	Increase. Rs.	Description.	Decrease. Tons.	Decrease. Rs.
Coal and Coke ...	1,848	11,894	Cotton, manufactured ...	...	3,858
Cotton Manufactured ...	138	...	Dyes and Tans ...	1,349	13,330
Drugs and Chemicals ...	429	1,935	Metals ...	...	7,392
Grain and Pulse ...	16,000	23,605	Oils ...	...	1,335
Hides and Skins ...	1,510	24,900	Oil seeds ...	1,690	17,235
Liquors ...	507	2,474	Provisions ...	3,700	29,155
Metals ...	1,104	...	Salt ...	3,922	20,460
Oils ...	100	...	Tea ...	42	2,166
Railway Plant and Rolling Stock.	14,097	29,549	Timber ...	8,779	48,339
Sugar ...	1,677	7,694	Commodities which yielded a total revenue of less than Rs. 1,000 each during the half-year	30	1,913
Tobacco ...	1,331	6,734			
Wool, raw ...	26	1,216			
Wool, manufactured ...	14	1,079			
All other Articles of Merchandise.	3,655	33,292			
Commodities which yielded a total revenue of less than Rs. 1,000 each during the half-year.	2,564	4,074			
			By Increase...	25,488	3,263
Total...	45,000	1,48,446	Total...	45,000	1,43,446

26. The total quantity of grain carried over the whole system was 108,552 tons, yielding a receipt of Rs. 6,36,533, against 92,552 tons and a receipt of Rs. 6,12,928 or an increase of 17·28 per cent in weight and of 3·85 per cent. in money. The average receipt per ton carried was Rs. 5·86 against Rs. 6·62.

The grain traffic has exhibited marked fluctuations during the half-year under report. The districts of Cuddapah and Bellary though themselves suffering from scarcity held large stocks and the high prices in the North of India during October and November caused sudden and large exports; these in turn caused a sudden rise of local prices which turned the current of trade and the imports of the next few weeks exceeded the previous exports. The same causes have affected the traffic in the Salem, Coimbatore and Malabar Districts.

Exports from Madras continue to decline due to the East Coast Railway having attracted grain formerly seaborne to Madras. The Peryar project has affected the demand for the S.I. Railway districts for which also the exports from the Mysore Dominions have been principally intended and we are not likely again to see the heavy grain traffic from the Bangalore Branch to Erode of former years. Our gross tonnage continues to be effected as explained in the last report by the decrease in the practice of consigning rice in the husk.

The cotton traffic showed little fluctuation.

Coal shows an increase due to stocks on the gold mines having run down during the prevalence of Cholera in the last few weeks of the preceding half-year. Independently of this the consumption on the mines is increasing owing to larger outturn by the old Companies and to several new Companies having started work, and we look for a heavier traffic in this staple in the future.

27. The following table is designed to show the tonnage of grain *sent* from and *received* at each district during the half-years ending 31st December 1895 and 1896 :—

Districts.	1895.				1896.			
	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	20,262	21·89	12,196	13·18	9,228	8·50	13,691	12·62
North Arcot ...	14,437	15·60	7,079	7·65	17,352	15·99	6,120	5·64
Salem	5,180	5·60	10,014	10·82	10,501	9·67	6,180	5·69
Coimbatore	900	0·97	26,919	29·09	7,517	6·92	14,836	13·66
Malabar	5,673	6·13	12,322	13·31	8,588	7·92	15,117	13·93
Cuddapah	2,462	2·66	1,828	1·98	3,963	3·65	9,032	8·32
Bellary	9,610	10·38	3,080	3·33	18,039	16·62	11,943	11·00
South Indian Railway.	4,316	4·66	5,193	5·61	9,320	8·58	2,423	2·23
Great Indian Peninsula Railway.	5,381	5·82	267	0·28	2,135	1·97	11,171	10·29
Mysore Dominions ...	20,128	21·75	8,977	9·70	14,049	12·94	9,502	8·75
Intra	4,203	4·54	4,677	5·05	7,860	7·24	8,537	7·87
Total...	92,552	100·00	92,552	100·00	108,552	100·00	108,552	100·00

28. The following table shows the tonnage of grain brought into Madras during the two periods by Sea, by Buckingham Canal, and by the Madras Railway :—

Means of Transport.	1895.	1896.
	Tons.	Tons.
Sea	18,551	11,593
Buckingham Canal	37,979	20,405
Madras Railway	11,158	13,955
Total ..	67,688	45,953

29. The Cotton was contributed by the following Railways and Local stations :—

Stations.	Half-year ending 31st Dec. 1895.			Half-year ending 31st Dec. 1896.		
	Pressed.	Loose.	Total.	Pressed.	Loose.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Southern Mahratta Railway ...	1,459	60	1,519	1,165	1	1,166
Adoni	2,177	155	2,332	2,789	93	2,882
Raichur	1,002	222	1,224	976	144	1,120
Tadpatri	835	90	925	720	293	1,013
Gunakal	272	14	286	571	28	599
Yerraguntla	289	198	487	482	93	575
Krishnapuram	300	5	305	379	...	379
Muddanuru...	...	120	120	...	365	365
Great Indian Peninsula Railway...	...	3	3	...	3	3
Mysore State Railway	273	62	335	199	...	199
Tiruppur	540	142	682	710	23	733
Coimbatore...	382	73	455	23	28	51
Somanur	159	...	159	266	...	266
Singanallur	405	30	435	237	...	237
Erode	139	148	287	61	28	89
Sankaridrug	...	35	35	...	6	6
Minor Stations	13	205	218	43	506	549
Total...	8,245	1,562	9,807	8,621	1,611	10,232

30. And was distributed as follows :—

Stations.	Half-year ending 31st Dec. 1895.			Half-year ending 31st Dec. 1896.		
	Pressed.	Loose.	Total.	Pressed.	Loose.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Madras	6,316	346	6,662	7,576	669	8,245
Muddanuru...	...	...	...	111	...	111
Tadpatri	...	16	16	...	...	...
Adoni	...	273	273	...	47	47
Raichur	...	...	...	...	146	146
Malabar	1,099	327	1,426	616	54	670
Guntakal	15	100	115	59	170	229
Southern Mahratta Railway ...	578	97	675	95	2	97
Great Indian Peninsula Railway..	37	...	37	...	...	...
South Indian Railway	150	16	166	39	7	46
Coimbatore District	33	160	193	84	18	102
Bellary District	...	122	122	...	...	...
Bangalore	14	46	60	35	27	62
Minor Stations	3	59	62	6	471	477
Total...	8,245	1,562	9,807	8,621	1,611	10,232

31. The condition in which the cotton was carried is shown in the following table :—

Condition.	December 1895.		December 1896.	
	Tons.	Rs.	Tons.	Rs.
Loose	1,562	23,425	1,611	20,524
Full pressed	8,245	1,14,916	8,621	1,17,190
Total...	9,807	1,38,341	10,232	1,37,714

32. The following table shows the quantity of cotton brought into Madras during the two half-years under comparison :—

Districts.	1895.	1896.
	Tons.	Tons.
Coimbatore and Salem	577	755
North-West Line	4,381	6,180
Southern Mahratta Railway...	1,699	1,309
South Indian Railway	...	1
Total ...	6,657	8,245

33. Tonnage of cotton delivered by Railway and the tonnage exported from Madras during the last and corresponding half-years :—

Period.	Delivered by Railway at Madras.	Exported at Madras.
	Tons.	Tons.
Half-year ending December 1895	6,657	5,558
Do. do. 1896	8,245	6,834

34. The following statement shows the cotton traffic during the December half of the last ten years :—

Half-years ending.	Pressed.	Loose.	Total.		Average Receipts per ton carried.
			Weight.	Receipts.	
	Tons.	Tons.	Tons.	Rs.	Rs.
December 1887	9,297	2,105	11,402	1,47,130	12 9/10
Do. 1888	7,448	1,704	9,152	1,16,113	12 2/5
Do. 1889	10,050	3,123	13,173	1,66,786	12 4/5
Do. 1890	12,857	4,054	16,911	2,14,792	12 11/16
Do. 1891	9,635	2,632	12,267	1,51,268	12 1/3
Do. 1892	5,343	2,118	7,461	1,10,056	14 3/4
Do. 1893	11,792	3,814	15,606	2,16,645	13 3/4
Do. 1894	8,420	2,375	10,795	1,56,986	14 3/5
Do. 1895	8,245	1,562	9,807	1,38,341	14 1/9
Do. 1896	8,621	1,611	10,232	1,37,714	13 1/4

35. The following figures show the ground-nut traffic during the last ten half-years :—

Period.	Total Weight.	Total Receipts.
	Tons.	Rs.
Half-year ending 30th June 1892	8,758	18,418
Do. 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

36. Tonnage of salt carried out of Madras to the various districts during the half-years ending 31st December 1895 and 1896 :—

Districts.	1895.		1896.	
	Tons.	Tons.	Tons.	Tons.
Between Madras, Arkonam and Conjeveram. ...		895	..	621
Cuddapah	738		120	
Other Stations on North-West Line ...	2,729		1,758	
		3,467		1,878
Arcot and Katpadi	...	2,390	...	2,308
Between Gudiyattam and Vaniyambadi ...	...	1,541	...	1,179
Bangalore	915		436	
Mysore State Railway	30		10	
Other Stations on Bangalore Branch ...	884		693	
		1,829		1,139
Salem	50		250	
Other Stations in Salem District... ...	2,406		1,988	
		2,456		2,238
Erode, Tiruppur and Coimbatore... ...	...	3,193	...	2,794
Southern Mahratta Railway	...	149	...	159
South Indian Railway	...	444	...	295
Great Indian Peninsula Railway	...	70	...	...
Total ...	...	16,434	...	12,611

37. The following statement shows the salt carried from certain South West line stations and the districts to which it was sent :—

Stations.	Half-year ending 31st December 1895.		Half-year ending 31st December 1896.	
	Sent from	Received at	Sent from	Received at
	Tons.	Tons.	Tons.	Tons.
Calicut	5,927	...	6,180	...
Ferok	603	...	674	...
Kallayi	72	...	85	...
Tirur	1,357	...	1,976	...
Erode	86	...	232	...
Coimbatore	...	...	...	...
Palghat	...	...	64	...
Salem	11	...	6	...
North Arcot District	...	30	...	...
Salem ,, ...	...	2,546	...	3,373
Coimbatore ,, ...	...	2,829	...	3,589
Malabar ,, ...	...	2,288	...	2,436
Mysore Dominions		363	...	119
Total...	8,056	8,056	9,517	9,517

38. SALT.—The total quantity of salt carried over the whole system was 24,131 tons yielding a revenue of Rs. 1,38,787, against 28,053 tons with a revenue of Rs. 1,59,247 or a decrease of 3,922 tons in weight, and Rs. 20,460 in money. The sum earned per ton hauled was Rs. 5·8 against Rs. 5·7. The exports from Madras amounted to 12,611 tons, or 52·26 per cent of the traffic carried. These figures and those in the following paragraph show that Madras Salt continues to be displaced on the Madras Railway Districts by Bombay salt despatched from Calicut and other West Coast Stations.

39. The following table shows the salt traffic carried out of Madras in each year for the five years ending 31st December 1896 :—

Districts.	1892.	1893.	1894.	1895.	1896.
	Tons.	Tons.	Tons.	Tons.	Tons.
Between Madras and Conjeveram ...	1,732	1,942	1,963	1,696	1,333
Cuddapah	1,721	1,673	1,497	1,143	340
Other Stations on North-West Line ...	8,526	8,210	6,402	5,443	3,986
Arcot and Katpadi	5,829	5,601	6,146	5,048	4,614
Gudiyattam and Vaniyambadi	2,906	3,202	3,294	3,081	2,437
Bangalore	2,046	2,347	2,281	1,511	556
Mysore State Railway	269	10	24	30	10
Other Stations on Bangalore Branch ...	1,510	1,511	1,707	1,748	1,463
Salem	939	301	823	149	260
Other Stations on Salem District... ...	3,954	3,940	5,026	4,621	3,274
Erode, Tiruppur and Coimbatore ...	6,389	6,417	7,897	5,812	4,287
Malabar	40	...	10	...	...
Southern Mahratta Railway	1,680	1,349	1,004	428	231
South Indian Railway	1,131	875	700	858	674
Great Indian Peninsula Railway	...	...	5	70	...
Total ...	38,672	37,378	38,779	31,638	23,465

40. Approximate Statement of traffic to the Gold Mines for the two half-years ending December 1895 and 1896.

Staples.	Half-year ending Dec. 1895.						Half-year ending Dec. 1896.					
	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	3,012	10,981	44,072	2,04,698	47,084	2,15,679	1,563	6,549	48,339	1,99,686	49,902	2,06,235
Timber	3,152	22,685	5,057	47,598	8,209	70,283	2,026	15,161	3,299	25,754	5,325	40,915
Firewood	2,401	1,903	10,119	17,999	12,520	19,902	2,820	2,797	7,256	7,893	10,076	10,690
Machinery	1,181	2,388	1,921	21,161	2,102	23,549	59	608	2,440	26,944	2,499	27,552
Unclassified Articles... ...	5,342	42,815	3,893	29,765	10,235	72,580	6,409	30,537	4,576	37,461	10 985	67,998
Total ...	15,088	80,772	65,062	3,21,221	80,150	4,01,993	12,877	55,652	65,910	2,97,738	78,787	3,53,390

41. An explanation of the increases and decreases in the other commodities is given below :—

		From	To
Coal and Coke—Increase.	Larger despatches of Coal and Coke.	Royapuram	K. G. F. S. Railway.
		G. I. P. Railway	Madras.
		Do.	Arcot.
Cotton Manufactured—Increase...	Larger despatches of Twist & Yarn (European)	Calicut. ...	Malabar District.
		G. I. P. Railway ...	Tadpatri.
	Larger despatches of Piece Goods (European.)	Madras ...	S. I. Railway.
		Do. ...	G. I. P. Railway.
		Do. ...	Bangalore Branch.
		G. I. P. Railway. ...	Madras.

		From	To
Drugs and Chemicals—Increase...	Larger despatches of Intoxicating drugs other than Opium.	Madras ...	Salem District.
		S. M. Railway ...	Madras.
	Larger despatches of Chinchona Bark.	Bowringpet ...	Madras.
		Do. ...	Salem District.
	Larger Despatches of Other Drugs and Chemicals.	S. M. Railway ...	Madras.
		Morappore ...	Coimbatore District.
		North Arcot District.	Madras.
Grain and Pulse—Increase...	Larger despatches of Wheat.	Katpadi ...	Madras.
		Do. ...	G. I. P. Railway.
		S. I. Railway ...	Yerraguntla.
		Do. ...	Bellary District.
	Larger despatches of Rice not in the Husk.	North Arcot District	Madras.
		Do. ...	Malabar District.
		Do. ...	S. M. Railway.
		Do. ...	Bangalore Branch.
		Salem District ...	Coimbatore District.
		Do. ...	Bangalore Branch.
		Do. ...	Cuddapah District.
		Palghat ...	Malabar District.
		S. M. Railway ...	Bellary District.
		S. I. Railway ...	Bangalore Branch.
	Larger despatches of Jawar and Bajra (Cholum and Cumboo).	Salem ...	Coimbatore District.
		Do. ...	Raichur.
		Do. ...	G. I. P. Railway.
		S. I. Railway ...	North Arcot District.
		Do. ...	Cuddapah District.
		S. M. Railway ...	Salem District.
		Do. ...	Katpadi.
		Do. ...	Cuddapah District.
		Adoni ...	G. I. P. Railway.
		Cuddapah ...	Do.
		Erode ...	Madras.
		Do. ...	G. I. P. Railway.
		Coimbatore ...	Malabar District.
		Do. ...	Cuddapah District.
		Do. ...	G. I. P. Railway.
		M. S. Railway ...	Madras.
Hides and Skins—Increase...	Larger despatches of Cattle Hides, (Dressed or Tanned.	Coimbatore ...	Madras.
		Vaniyambadi ...	Do.
		North Arcot District	Do.
	Larger despatches of Cattle Hides, Raw.	Madras ...	North Arcot District.
		Mankarai ...	Coimbatore District.
		G. I. P. Railway ...	Madras.
		Do. ...	Bangalore.
	Larger despatches of Sheep Skins, Raw.	Salem District ...	Coimbatore District.
		Do. ...	S. I. Railway.
		G. I. P. Railway ...	Madras.
		S. M. Railway ...	North Arcot District.
		Do. ...	Madras.
		Do. ...	Coimbatore District.
Liquors—Increase ...	Larger despatches of Spirits.	Madras ...	Bangalore Branch.
		Arcot ...	S. I. Railway.
		Coimbatore District.	Mettupalaiyam.
		Do. ...	S. I. Railway.
		S. M. Railway ...	Bellary District.
Metals—Increase ...	Larger despatches of Copper, Unwrought.	Calicut ...	Malabar District.
	Larger despatches of Brass, Unwrought.	Madras ...	North Arcot District.
		Do. ...	Salem District.
		Do. ...	Coimbatore District.
	Larger despatches of Iron.	Royapuram ...	Madras-Ennur Ry.
		Do. ...	K. G. F. S. Railway.
		Do. ...	Krishnarajapuram.
		Bowringpet ...	Madras.
		G. I. P. Railway ...	Do.
		Do. ...	Bellary District.
	Larger despatches of Other Metals.	Madras ...	K. G. F. S. Railway.
		Do. ...	Bangalore Branch.

		From		To
Oils—Increase ...	Larger despatches of Kerosine Oil.	Calicut	...	Salem District.
		Do.	...	Coimbatore District.
		Tirur	...	Salem District.
		Do.	...	Malabar District.
		Ferok	...	Coimbatore District.
	Larger despatches of Castor Oil.	Sankaridrug	...	S. I. Railway.
		Cauvery	...	Do.
Railway Plant and Rolling Stock.—Increase.	Larger despatches of Carriages and Trucks and parts thereof.	Rayapuram	...	Perambur.
	Larger despatches of Steel Rails and Fish Plates.	Rayapuram	...	Madras-Ennur Ry.
		Do.	...	S. M. Railway.
		Do.	...	S. I. Railway.
Sugar—Increase ...	Larger despatches of Unrefined (Molasses or Jaggery &c.)	Katpadi	...	Madras.
		Do.	...	North Arcot District.
		Do.	...	Malabar District.
		Do.	...	G. I. P. Railway.
		S. I. Railway	...	North Arcot District.
		Do.	...	Bangalore Branch.
		Arcot	...	G. I. P. Railway.
		Do.	...	S. M. Railway.
Tobacco—Increase ...	Larger despatches of Unmanufactured Tobacco	Tiruppur	...	North Arcot District.
		Do.	...	Malabar District.
		Sulur	...	North Arcot District.
		Do.	...	Malabar District.
		Coimbatore	...	Do.
		Do.	...	Cuddapah District.
		Palghat	...	Malabar District.
		Razampeta	...	Chingleput District.
		Do.	...	Chingleput District.
		S. M. Railway	...	Madras.
		Do.	...	Bellary District
	Larger despatches of Manufactured Tobacco Cigars.	Coimbatore District.		Bangalore Branch.
		Do.	...	Bellary District.
Wool Raw—Increase ...	Larger despatches of Wool, Raw.	Bellary District	...	Bangalore City.
		Do.	...	G. I. P. Railway.
		Do	...	S. M. Railway.
		Salem District	...	Bangalore.
Wool Manufactured.—Increase...	Larger despatches of Wool Piece Goods, (European.)	G. I. P. Railway	...	Madras.
	Larger despatches of Wool Piece Goods, (Indian.)	G. I. P. Railway	...	Madras.
		S. M. Railway	...	Do.
		Do.	...	Palghat.
		Do.	...	Raichur.
All other Articles of Merchandise.—Increase	Larger despatches of Other Articles of Merchandise.	Rayapuram	...	K. G. F. S. Railway.
		Do.	...	North Arcot District.
		Bangalore City	...	Madras.
		Do.	...	Malabar District.
		Do.	...	Bangalore Branch.
		Tirupattur	...	Madras.
		Sankaridrug	...	Coimbatore District.
		Do.	...	S. I. Railway.
		S. M. Railway	...	Cuddapah District.
		S. I. Railway	...	Salem District
		Do.	...	Malabar District.

		From		To
Dyes and Tans—Decrease	Smaller despatches of Indigo.	Cuddapah District	...	Madras.
		S. M. Railway	...	Do.
	Smaller despatches of Cutch.	S. I Railway	...	Salem.
	Smaller despatches of Turmeric.	Cuddapah District	...	Madras.
		C. N. State Railway.		Do.
	Smaller despatches of Other Dyes and Tans.	Bangalore	...	Madras.
		G. I. P. Railway	...	Do.
		Do.	...	North Arcot District.
		Bowringpet	...	Do.
		Do.	...	Salem.
Oil Seeds—Decrease ...	Smaller despatches of Linseed.	S. M. Railway	...	Madras.
	Smaller despatches of Rape and Mustard.	Bangalore Branch	...	Madras.
		Do.	...	S. I. Railway.
		S. M. Railway	...	Palghat.
		M. S. Railway	...	Madras.
	Smaller despatches of Til or Gingelly Seeds.	Erode	...	North Arcot District.
		Tiruppur	...	S. I. Railway.
		Bangalore City	..	Erode.
		Do.	...	Malabar District.
		Do.	...	S. I. Railway.
	Smaller despatches of Castor Seeds.	Salem District	...	Madras.
		Do.	...	Coimbatore District.
		Do.	...	S. I. Railway.
		Raichur	...	Madras.
		S. M. Railway	...	Do.
	Smaller despatches of Other Oil Seeds.	Madras	...	North Arcot District.
		Rayapuram	...	Malabar District.
		Adoni	...	Cuddapah District.
		Do.	...	Bellary District.
Provisions—Decrease ...	Smaller despatches of Ghee.	Coimbatore District		Madras.
		Do.	...	Katpadi.
		Do.	...	S. M. Railway.
		Salem	...	Bangalore.
		Do.	...	Madras.
		Do.	...	S. I. Railway.
	Smaller despatches of Other Provisions.	Madras	...	Bangalore Branch.
		Katpadi	...	Madras.
		Do.	...	Bangalore Branch.
		Sankaridrug	...	Madras.
		Do.	...	Salem District.
		Tiruppur	...	Madras.
		Do.	...	Bangalore City.
		Do.	...	Malabar District.
		Do.	...	S. I. Railway.
		Mettupalaiyam	...	Madras.
		Do.	...	S. I. Railway.
		Tirur	...	Malabar District.
		Razampeta	...	Madras.
		Do.	...	S. I. Railway.
Tea—Decrease ...	Smaller despatches of Tea, Indian.	Mettupalaiyam	...	Madras.
		Do.	...	Malabar District.
Timber—Decrease ...	Smaller despatches of Timber.	Puttur	...	Madras.
		Ambur	...	Bangalore Branch.
		Kuppam	...	K. G. F. S. Railway.
		Whitefield	...	Do.
		Krishnarajapuram	...	Do.
		Patchur	...	Bisanattam.
		Do.	...	K. G. F. S. Railway.
		Walayar	...	Coimbatore.
		Do.	...	S. I. Railway.
		Kanyikod	...	Coimbatore.
		Olavakkot	...	North Arcot District.
		Do.	...	Coimbatore.
		Do.	...	S. I. Railway.
		Kallayi	...	Bangalore Branch.

42. The interchange of the principal commodities with Foreign Railways during the two half-years under review, was as follows:—

Commodities.	1895.		1896.	
	Tons.	Rs.	Tons.	Rs.
Coal and Coke	48,140	1,82,636	50,703	1,97,463
Cotton	2,766	34,525	1,668	22,101
Do. Manufactured	3,784	49,784	3,793	47,001
Dyes and Tans	4,869	52,867	5,529	57,101
Grain and Pulse	29,612	1,92,234	46,180	3,02,175
Hides and Skins	7,876	1,23,937	9,499	1,50,592
Liquors	1,661	20,322	2,133	24,043
Metals	2,803	33,374	4,014	36,049
Oils	2,875	26,009	2,761	29,584
Oil Seeds	11,704	79,405	11,769	72,142
Provisions	9,026	77,361	9,267	76,913
Railway Plant and Rolling Stock..	43	573	13,971	30,202
Salt	3,068	14,812	2,588	12,224
Spices	3,666	40,722	3,812	39,619
Sugar	4,553	31,250	6,577	52,345
Timber	18,113	88,828	20,712	64,793
Tobacco	1,400	15,213	1,804	18,608
All other Articles of Merchandise..	10,149	1,52,425	12,240	1,99,166
Total...	166,108	12,16,277	209,020	14,32,126

43. WORKING EXPENSES.—The net increase of Rs. 6,693 in the working expenses of the Traffic Department is shewn in detail in Statement No. 20 of the Appendix.

The increase comes under the heads of Station staff due to the opening of the Madras-Ennur Railway, train staff due to the same cause and improved rate of pay for guards in the lower grades as explained in the last report, and to an additional charge of Rs. 3,517 for Guntakal joint station worked by the S. M. Railway.

Pay of guards.—Allusion was made to this question in the last report since when increasing attention has been drawn to the disparity between the conditions of service on the Madras Railway which have remained unaltered for many years, and on the neighbouring narrow guage lines, and the question has been further forced to the front by recent occurrences on the G. I. P. Railway. Its consideration cannot with safety be longer postponed and I am addressing you separately on this subject.

44. 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 December 1896.

45. GENERAL.—Through booking had to be suspended from the 29th November to the 5th December owing to the breaches at the 95th and 107th miles N. W. line, and during that time traffic was diverted over the S. M. and S. I. Railways, at Guntakal, Katpadi and Renigunta. This, and the long period of bad weather which preceded the breaches, accounts for the reduced receipts for the months of November and December shewn in Appendices 1 and 2.

The S. I. Railway having withdrawn from their opposition to the shortest route agreement for through traffic which had been in force from the previous March, another meeting of the Traffic Officers of the four Railways was held in Bombay in October and the result has been a large diminution of friction and correspondence in connection with through traffic. The figures in para. 42 *supra* show that the arrangement has so far been a satisfactory one for

the Madras Railway on the whole, but there is little doubt that the exception in favour of Bombay traffic made by the G. I. P. and S. M. Railways has deprived us of receipts which legitimately belong to the Madras Railway.

In the report for the preceding half-year it was stated that at the close of the period therein referred to Pintsch's system of gas-lighting was in use on our principal trains. All trains are now lighted with gas with the exception of the locals on the West Coast and the K. G. F. and Ennur Railways. The following figures represent the cost of lighting trains, Stations and Offices with cocoanut oil, kerosine oil and gas by the Traffic Department.

1893	...	... Rs. 83,884
1894	...	... 73,246
1895	...	... 49,634
1896	...	... 54,812

During the same period the price of cocoanut oil rose from Rs. 77 per candy to Rs. 87, and of kerosine oil from 5 as. 3 ps. per gallon to 8 as. The saving in the earlier years was due to the gradual substitution of kerosine for cocoanut oil in signal and gate lights but the later saving appears to be largely due to the use of gas.

46. APPENDICES.

The undermentioned statements are enclosed:—

1. Coaching Traffic Receipts in each month.
2. Goods do. do.
3. Comparison of Coaching Receipts for 1895 and 1896.
4. Do. Goods do. do.
5. Average Receipts per mile open and per mile run during 1895 and 1896.
6. Expenditure table for 1895 and 1896.
7. Percentage of Working Expenses for 1895 and 1896.
8. Do. Revenue do.
9. Passenger Traffic exclusive of return fares and soldiers for 1896.
10. Average receipts per mile open do. do.
11. Passenger Traffic inclusive of return fares but exclusive of soldiers for 1896.
12. Average receipts per mile open do. do.
13. Return Fare Traffic for 1896.
14. Comparison of Passenger Traffic inclusive of return fares but exclusive of soldiers for 1895 and 1896.
15. Comparison of Passenger Traffic exclusive of return fares and soldiers for 1895 and 1896.
16. Comparison of Return Fare Traffic for 1895 and 1896.
17. Parcels, Treasure and Passenger's luggage for 1895 and 1896.
18. Gross earnings and Tonnage of Goods Traffic.
19. Comparison of Goods Traffic for 1895 and 1896.
20. Comparative statement of Traffic expenses for 1895 and 1896.
21. Table of Coaching Traffic in and out at stations for 1895 and 1896.
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 31st DECEMBER 1896.

1. *Coaching Traffic receipts in each month for the half-year ending* 31*st December* 1896.

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.
July ...	3,07,475	7,055	10,704	546	5,695	472	19,865	447	...	49	4,048	3,56,356
August ...	3,24,972	7,477	8,926	493	4,998	65	23,967	476	...	172	4,088	3,75,634
September ...	3,35,145	6,694	9,731	383	6,700	213	26,460	412	...	97	4,064	3,89,899
October ...	3,16,655	11,567	11,507	3,339	9,109	763	26,150	498	...	138	4,372	3,84,098
November ...	2,92,031	12,648	8,958	3,059	4,960	1,259	22,245	506	...	157	4,091	3,49,914
December ...	3,17,877	12,906	9,009	3,612	5,893	1,234	25,833	505	1,280	101	3,209	3,81,459
Total...	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

2. *Goods Traffic receipts in each month for the half-year ending* 31*st December* 1896.

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.
July	4,88,749	9	7,672	1,064	—155	985	427	4,98,751
August	5,04,198	354	10,315	1,652	16	889	526	5,17,950
September	4,76,544	222	11,615	1,505	280	920	475	4,91,561
October	5,65,713	69	10,124	2,006	248	1,171	388	5,79,719
November	4,92,815	45	8,868	1,654	680	4,811	655	5,09,528
December	4,38,988	911	14,068	4,489	1,344	1,124	1,789	4,62,713
Total...	29,67,007	1,610	62,662	12,370	2,413	9,900	4,260	30,60,222

3. *Comparison of the Coaching traffic for the half-years ending December* 1895, *and June and December* 1896.

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.
December 1895 ...	19,50,295	1,01,736	55,585	21,914	50,674	766	1,47,925	2,568	11,673	602	27,023	23,70,761
June 1896 ...	19,94,014	50,951	67,443	10,737	44,263	3,833	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

4. *Comparison of the Goods traffic for the half-years ending December 1895 and June and December 1896.*

Half-year.	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.
December 1895...	29,63,744	4,089	59,918	2,553	6,122	538	—3,739	7,180	3,076	30,43,481
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	4,560	30,60,222

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 December 1895	6,549·25	4·30
Do. do. June 1896	6,510·00	4·42
Do. do. December 1896	6,442·68	4·35

6. *Table of expenditure for the half-years ending December 1895 and June and December 1896.*

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 December 1895...	5,83,399	10,29,076	2,91,120	4,09,760	2,85,229	49,257	26,47,541
Do. do. 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

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 December 1895...	22·02	38·87	11·00	15·48	10·77	1·86	100·00
Do. do. June 1896...	22·22	38·28	11·31	16·23	10·52	1·44	100·00
Do. do. December 1896...	23·47	38·22	11·10	15·14	10·43	1·64	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 December 1895...	10·60	18·71	5·29	7·45	5·18	0·90	51·87	100·00
Do. do. June 1896...	11·15	19·21	5·68	8·14	5·28	0·72	49·82	100·00
Do. do. December 1896...	11·93	19·43	5·65	7·69	5·30	0·83	49·17	100·00

9. *Passenger traffic, exclusive of return fares and soldiers, in each month for the half-year ending December 1896.*

Months.	First class.		Second class.		Third class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
July ...	1,380	13,026	5,395	16,857	754,145	2,73,544	760,920	3,03,427
August ...	1,469½	13,716	5,189½	16,447	795,246	2,91,670	801,905	3,21,833
September ...	1,472½	14,030	4,930	14,798	760,598	3,03,517	767,000½	3,32,345
October ...	1,802	17,058	5,266½	15,568	751,135	2,80,624	758,203½	3,13,250
November ...	1,506½	12,306	4,963	14,054	728,235½	2,63,880	734,705	2,90,240
December ...	1,924	18,603	6,055½	20,175	722,124	2,77,076	730,103½	3,15,854
Total...	9,554½	88,739	31,799½	97,899	4,511,483½	16,90,311	4,552,837½	18,76,949

10. *Average of passenger traffic, exclusive of return fares and soldiers for the half-year ending December 1896.*

	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	105 10 3	116 8 9	2,012 4 5	2,234 7 5
Average percentage of numbers ...	...	0·21	0·70	99·09	100·00
Average mileage of passengers ...	...	149	99	34	—
Average percentage of receipts ...	...	4·73	5·22	90·05	100·00

11. *Passenger traffic in each month, inclusive of return fares, but exclusive of soldiers, for the half-year ending December 1896.*

Months.	First class.		Second class.		Third class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
July ...	1,952	13,399	6,567	17,305	815,220	2,76,771	823,739	3,07,475
August ...	1,759½	13,892	7,333½	17,076	824,144	2,94,004	833,237	3,24,972
September ...	2,189½	15,101	6,142	15,470	782,286	3,04,574	790,617½	3,35,145
October ...	2,593	17,970	8,272½	16,561	812,285	2,82,124	823,150½	3,16,655
November ...	1,704½	12,749	6,426	14,448	751,984½	2,64,833	760,115	2,92,030
December ...	2,074	19,150	8,089½	21,081	741,859	2,77,645	752,022½	3,17,876
Total...	12,272½	92,261	42,830½	1,01,941	4,727,778½	16,99,951	4,782,881½	18,94,153

12. *Average of passenger traffic, inclusive of return fares, but exclusive of soldiers, for the half-year ending December* 1896.

	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	109 13 4	121 5 9	2,023 12 0	2,254 15 1
Average percentage of numbers ...	...	0·26	0·89	98·85	100·00
Average mileage of passengers ..	...	148	94	33	...
Average percentage of receipts ...	...	4·87	5·38	89·75	100·00

13. *Return fare traffic for the half-year ending 31st December* 1896.

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.
July ...	560	271	1,160	328	49,240	510	50,960	1,109	12	103	12	120	11,835	2,716	11,859	2,939
August ...	280	125	2,120	481	20,680	346	23,080	952	10	52	24	147	8,218	1,988	8,252	2,187
September	680	726	1,120	221	18,440	282	20,240	1,229	37	345	92	451	3,248	775	3,377	1,571
October...	760	632	2,880	610	57,920	738	61,560	1,980	31	280	126	382	3,230	762	3,387	1,424
November	160	210	1,440	261	20,680	303	22,280	774	38	233	23	133	3,069	650	3,130	1,016
December.	120	150	1,960	418	18,018	265	20,160	833	30	397	74	487	1,655	305	1,759	1,189
Total...	2,560	2,114	10680	2,319	185,040	2,444	198,280	6,877	158	1,410	351	1,720	31,255	7,196	31,764	10,326

14. *Comparison of the passenger traffic, inclusive of return fares, but exclusive of soldiers, for the half-years ending December* 1895 *and June and December* 1896.

Half-years.	First class.		Second class.		Third class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
Half-year ending December 1895	11,537½	1,07,506	47,033¼	1,06,013	4,327,774	17,36,776	4,386,345	19,50,295
Do. do. 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	92 261	42,830½	1,01,941	4,727,778½	16,99,951	4,782,881½	18,94,153

15. *Comparison of the passenger traffic, exclusive of return fares and soldiers, for the half-years ending December* 1895 *and June and December* 1896.

Period.	First class.		Second class.		Third class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
December 1895 ...	9,716½	1,04,255	32,128½	1,01,124	4,142,772	17,28,269	4,184,615	19,33,618
June 1896 ...	9,627	95,337	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

16. *Comparison of the return fare traffic for the half-years ending December* 1895 *and June and December* 1896.

Period.	First class.		Second class.		Third class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
Half-year ending December 1895. **Trivellore** ...	...	...	...	...	**8,465**	**2,083**	**8,465**	**2,083**
Half-year ending December 1895. Other excursions ...	1,821	3,280	14,907	4,889	176,537	6,426	193,265	14,595
Half-year ending June 1896. **Trivellore** ...	...	...	...	...	**18,157**	**4,510**	**18,157**	**4,510**
Half-year ending June 1896. Other excursions ...	1,276	2,047	14,902	4,165	201,617	4,683	217.795	10,895
Half-year ending December 1896. **Trivellore**	...	...	...	...	**13,714**	**3,388**	**13,714**	**3.388**
Half-year ending December 1896. Other excursions	2,718	3 524	11,031	4,039	202,581	6,252	216,330	13,815

17. *Parcels, treasure and passenger luggage for the half-years ending December* 1895 *and June and December* 1896.

Period.	Parcels.			Luggage.				
	No.	Rs.	Revenue parcels.	Ordinary.		Military.		Total.
				Public.	Treasure	By ordinary trains.	By troop trains.	
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
December 1895 ...	175,735	1,47,925	2,568	41,610	13,975	7,469	14,445	77,499
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	35,110	23,725	5,221	6,211	70,267

18. *Gross earnings and tonnage of goods, exclusive of Railway materials and Revenue stores, for the half-year ending 31st December* 1896.

Months.	Tons.	Rupees.
July ...	75,315	4,88,749
August ...	76,834	5,04,198
September ...	75,338	4,76,544
October ...	87,604	5,65,713
November ...	75,543	4,92,815
December ...	66,290	4,38,988
Total ...	456,924	29,67,007

19. *Comparison of the goods traffic, exclusive of Railway materials and Revenue stores, for the half-years ending December* 1895 *and June and December* 1896.

Period.	Tons.	Rupees.
Half-year ending December 1895 ...	431,436	29,63,744
Do. do. June 1896 ...	425,201	29,34,790
Do. do. December 1896 ...	456,924	29,67,007

20. *Comparative statement of the traffic expenses, for the half-years ending December* 1895 *and June and December* 1896.

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 Emur Railways.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1895 Dec.	44,485	23,615	3,876	559	1,90,841	49,846	41,302	1,806	453	5,789	37,451	2,373	7,302	4,677	1,165	988	6,767	4,09,761
1896 June	48,160	23,633	4,874	581	1,93,858	51,350	59,143	4,019	703	5,817	38,368	2,879	12,391	5,033	1,182	1,090	7,738	4,45,373
1896 Dec.	44,652	23,722	3,636	510	1,92,070	52,409	41,274	3,327	1,826	5,757	34,780	1,635	10,819	6,788	1,372	1,209	9,382	4,16,454

21. *The following Table shows the Coaching Traffic in and out of the following Stations on the Madras Railway for the half-years ending 31st December 1895 and 1896.*

STATIONS.	Number of Passengers.						Coaching Receipts.					
	1895.			1896.			1895.			1896.		
	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	272,450	268,025	540,475	302,055	281,018	583,073	3,89,807	3,30,253	7,20,060	3,76,229	3,26,796	7,03,025
Rayapuram...	50,331	56,631	106,962	74,129	84,015	158,144	16,709	17,484	34,193	4,781	18,598	23,279
Veyasarpaudy*	...	...	...	631	1,222	1,853	...	...	...	16	60	76
Washermenpet Junction	68,792	79,959	148,751	76,690	88,625	165,315	7,379	20,159	27,538	7,729	19,779	27,508
Perambur	111,970	114,468	226,438	122,264	138,039	260,303	8,165	21,013	29,178	8,606	24,003	32,609
Connur	34,477	35,605	70,082	41,216	42,475	83,691	2,716	3,272	5,988	2,642	3,128	5,770
Ambattur	15,016	14,472	29,488	18,408	17,159	35,567	1,719	1,784	3,503	1,639	1,679	3,318
Avadi	58,781	52,769	111,550	64,020	62,747	126,767	10,860	10,316	21,176	9,935	9,880	19,815
Tinnanur	29,287	28,292	57,579	35,522	35,794	71,316	5,165	5,240	10,405	5,252	5,523	10,775
Sevvapet Road	14,572	14,851	29,423	15,511	15,855	31,366	2,739	2,927	5,666	2,471	2,544	5,015
Trivellore	93,329	81,657	174,986	105,016	87,063	192,079	26,714	22,943	49,657	27,491	21,482	48,973
Kadambattur	20,065	20,917	40,982	22,482	23,444	45,926	4,319	4,651	8,970	4,041	4,396	8,437
Manur	9,591	10,003	19,594	11,194	11,712	22,906	1,625	1,944	3,569	1,564	1,911	3,475
Chinnamapet	13,391	11,573	24,964	14,065	13,639	27,704	3,236	2,875	6,111	2,976	3,001	5,977
Mosur	3,991	4,521	8,512	4,628	5,218	9,846	676	881	1,557	651	960	1,611
Arkonam Junction...	121,033	117,982	239,015	155,636	152,923	308,559	63,977	62,735	1,26,712	68,730	68,598	1,37,328
Tiruttani	85,176	67,596	152,772	85,724	72,112	157,836	22,570	16,412	38,982	18,587	13,955	32,542
Ponpadi	5,836	6,332	12,168	8,650	9,263	17,913	633	898	1,531	734	895	1,629
Nagari	35,889	36,570	72,459	41,671	41,445	83,116	8,484	8,863	17,347	7,807	8,093	15,900
Vepagunta	4,812	5,498	10,310	6,209	6,655	12,864	800	1,041	1,841	844	1,029	1,873
Puttur	35,303	37,976	73,279	40,632	42,125	82,757	8,415	9,286	17,701	7,885	8,482	16,367
Pudi	18,738	20,047	38,785	22,022	23,129	45,151	3,986	4,630	8,616	3,852	4,373	8,225
Renigunta Junction	71,314	72,861	144,175	78,673	79,786	158,459	49,764	49,657	99,421	53,171	53,213	1,06,384
Mamanduru	2,428	2,717	5,145	2,433	2,834	5,267	399	560	959	323	436	759
Peddapadu	5,370	53,17	10,687	6,320	6,415	12,735	1,195	1,277	2,472	1,208	1,381	2,589
Koduru	16,285	16,006	32,291	18,458	18,167	36,625	5,213	5,741	10,954	5,021	5,383	10,404
Urampadu	10,390	10,461	20,851	11,837	12,068	23,905	2,093	2,314	4,407	2,111	2,453	4,564
Reddipalli	12,316	12,810	25,126	13,988	15,085	29,073	3,115	4,265	7,380	2,841	3,821	6,662
Razampeta	26,753	26,495	53,248	29,695	29,199	58,894	8,775	9,166	17,941	9,252	8,472	17,724
Nandalur	21,010	20,891	41,901	24,061	23,706	47,767	5,305	5,793	11,098	5,540	5,716	11,256
Vontimitta	18,791	18,396	37,187	21,410	21,268	42,678	4,811	7,044	11,855	4,680	7,002	11,682
Siddhavattam	1,953	2,469	4,422	1,833	2,451	4,284	308	429	737	298	414	712

*Opened 1st December 1896.

24

Cuddapah	56,331	56,706	113,027	58,125	57,915	116,040	30,152	31,818	61,970	29,960	31,219	61,179
Krishnapuram	11,340	10,476	21,816	13,314	11,588	24,902	1,887	2,923	4,810	2,084	2,777	4,861
Gangayapalli	9,465	10,150	19,615	9,531	10,664	20,195	1,293	1,856	3,149	1,043	1,635	2,678
Kamalapuram	18,510	18,374	36,884	18,943	19,013	37,956	4,642	4,344	8,986	4,140	4,557	8,697
Yerragudipadu	4,464	4,857	9,321	5,025	5,309	10,334	722	959	1,681	734	973	1,707
Yerraguntla	22,613	21,902	44,515	22,763	21,977	44,740	10,577	13,521	24,098	10,297	14,123	24,420
Kalamala	4,576	4,308	8,884	4,885	4,458	9,343	968	1,126	2,094	912	1,039	1,951
Muddanuru	14,257	14,454	28,711	14,764	15,201	29,965	5,954	5,679	11,633	5,809	5,778	11,587
Mangapatnam	3,288	3,589	6,877	3,646	3,758	7,404	672	942	1,614	663	768	1,431
Kondapuram	11,326	11,212	22,538	10,171	10,023	20,194	4,086	4,179	8,265	3,367	3,339	6,706
Regadepalli*	...	...	...	3,300	3,697	6,997	...	...	...	557	945	1,502
Vanganur	5,740	5,889	11,629	5,818	5,528	11,346	1,582	1,791	3,373	1,510	1,483	2,993
Tadpatri	28,855	28,615	57,470	25,763	25,592	51,355	12,087	11,307	23,394	9,981	9,273	19,254
Penneru	9,188	8,874	18,062	8,848	8,665	17,513	1,844	1,923	3,767	1,569	1,711	3,280
Rayalcheruvu	12,488	12,250	24,738	12,682	12,630	25,312	3,272	3,239	6,511	2,870	3,284	6.154
Jakkalacheruvu	3,288	3,236	6,524	3,561	3,520	7,081	674	697	1,371	648	656	1,304
Gooty	34,143	33,340	67,483	34,005	33,545	67,550	12,448	14,261	26,709	11,285	13,741	25,026
Patakottacheru	3,689	3,923	7,612	5,076	5,380	10,456	524	681	1,205	591	729	1,320
Timmancherla	9,791	10,117	19,908	10,114	10,850	20,964	2,921	3,392	6,313	2,336	2,890	5,226
Guntakal Junction...	35,702	29,815	65,517	40,169	34,379	74,548	44,930	31,517	76,447	37,156	29,083	66,239
Nancherla	2,880	3,142	6,022	2,768	2,980	5,748	766	864	1,630	687	762	1,449
Molagavalli	3,078	2,982	6,060	4,023	3,889	7,912	598	736	1,334	677	699	1,376
Aspari	5,957	5,868	11,825	6,294	6,220	12,514	1,341	1,760	3,101	1,342	1,417	2,759
Nagarur	3,980	3,266	7,246	3,981	3,897	7,878	738	575	1,313	479	557	1,036
Adoni	42,687	44,320	87,007	50,505	50,279	100,784	17,778	16,827	34,605	19,888	18,227	38,115
Kupgal	8,145	7,747	15,892	9,851	9,146	18,997	1,273	1,371	2,644	1,283	1,489	2,772
Kosgi	13,846	13,332	27,178	16,483	16,041	32,524	3,326	3,021	6,347	3,310	3,285	6,595
Tungabhadra	11,459	11,072	22,531	13,193	13,592	26,785	3,857	3,196	7,053	5,664	3,832	9,496
Matmari	11.727	11,054	22,781	13,593	13,900	27,493	2,100	2,159	4,259	2,040	2,562	4,602
Raichur Junction	24,904	25,617	50,521	29,073	29,663	58,696	31,753	27,029	58,782	34,614	30,984	65,598
Munnal	14,279	15,000	29,279	15,128	16,000	31,128	2,460	3,434	5,894	2,184	2,767	4,951
Sholinghur	29,345	30,232	59,577	30,091	31,151	61,242	9,901	10,550	20,451	8,778	9,230	18,008
Thalangai...	2,843	3,471	6,314	2,897	3,672	6,569	366	570	936	319	467	786
Arcot	80,598	81,380	161,978	79,368	78,372	157,740	35,602	37,067	72,669	33,030	33,667	66,697
Ponnai Road	3,434	4,634	8,068	4,733	6,389	11,122	430	913	1,343	429	937	1,366
Tiruvallam	15,081	16,096	31,177	17,213	19,650	36,863	4,899	6,011	10,910	5,438	7,280	12,718
Katpadi Junction	138,312	127,890	266,202	148,419	140,809	289,228	84,845	76,743	1,61,588	79,478	77,196	1,56,674
Vellore O. A.	...	...	...	...	...	...	35	5	40	21	91	112
Latteri	4,667	6,804	11,471	5,570	8,014	13,584	566	1,103	1,669	467	1,066	1,533
Virinchipuram	17,079	17,363	34,442	18,693	18,312	37,005	3,942	5,260	9,202	4,109	5,508	9,617
Gudiyattam	58,186	57,668	115,854	59,949	59,215	119,164	18,289	19,219	37,508	16,269	18,640	34,909
Vallathoor...	13,246	11,666	24,912	14,070	13,112	27,182	2,327	2,658	4,985	2,268	2,794	5,062
Mailpatti	23,373	26,162	49,535	24,638	29,240	53,878	6,952	7,424	14,376	6,680	7,735	14,415
Ambur	56,250	58,184	114,434	57,822	59,474	117,296	16,473	19,327	35,800	15,099	1,8790	33,889
Vinnamangalam	4,100	5,063	9,163	4,759	6,586	11,345	569	985	1,554	482	1,187	1,669
Vaniyambadi	64,327	65,777	130,104	67,652	67,861	135,513	21,124	21,824	42,948	19,452	19,161	38,613

* Opened 1st July 1896.

25

The following Table shews the Coaching Traffic in and out of the following Stations on the Madras Railway for the half-years ending 31st December 1895 and 1896—continued.

STATIONS.	Number of Passengers.						Coaching Receipts.					
	1895.			1896.			1895.			1896.		
	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	3,955	4,654	8,609	7,086	8,380	15,466	431	863	1,294	640	1,134	1,774
Jalarpet Junction	67,218	65,323	132,541	79,251	77,371	156,622	29,915	28,966	58,881	29,856	30,722	60,578
Patchur	10,937	12,184	23,121	13,466	15,635	29,101	2,657	4,125	6,782	2,852	4,364	7,216
Mulanur	5,119	5,102	10,221	7,258	6,796	14,054	631	849	1,480	754	874	1,628
Kuppam	28,551	28,755	57,306	31,559	31,857	63,416	9,433	9,463	18,896	8,973	8,626	17,599
Gudupalli	7,438	9,535	16,973	9,331	11,118	20,449	1,183	2,008	3,191	1,240	2,031	3,271
Bisanattam	8,440	8,500	16,940	12,665	11,644	24,309	2,315	3,066	5,381	3,455	4,364	7,819
Kamasamudram	15,276	14,207	29,483	16,885	14,819	31,704	3,809	3,405	7,214	4,080	2,746	6,826
Bowringpet Junction	68,982	58,745	127,727	74,656	61,491	136,147	41,326	29,630	70,956	43,753	28,643	72,396
Tyakal	15,220	15,194	30,414	16,677	16,759	33,436	2,680	2,814	5,494	2,541	2,671	5,212
Malur	30,149	29,133	59,282	32,321	32,176	64,497	11,613	12,647	24,260	13,052	12,980	26,032
Devankundi	12,955	12,989	25,944	13,597	13,443	27,040	2,417	2,679	5,096	2,284	2,381	4,665
Whitefield	28,288	25,453	53,741	31,366	28,251	59,617	5,640	5,285	10,925	5,681	5,159	10,840
Krishnarajapuram	14,498	16,315	30,813	17,083	18,846	35,929	2,222	3,101	5,323	2,209	3,028	5,237
Bangalore Cantonment	107,566	81,931	189,497	117,266	84,391	201,657	1,81,973	1,30,936	3,12,909	1,64,292	1,14,212	2,78,504
Do. City Junction	52,647	72,068	124,715	51,569	67,205	118,774	44,638	65,542	1,10,180	25,747	52,663	78,410
Bangalore Pettah	...	292	292	...	14,837	14,837	1	340	341	...	12,883	12,883
Tirupattur	68,004	66,194	134,198	63,013	60,702	123,715	28,099	27,213	55,312	23,320	21,689	45,009
Kagankarai	8,989	9,971	18,960	9,530	10,346	19,876	1,593	2,253	3,846	1,466	1,808	3,274
Samalpatti	12,860	13,248	26,108	14,435	13,991	28,426	4,525	4,939	9,464	4,656	4,678	9,334
Kallavi	7,812	8,495	16,307	8,595	9,152	17,747	1,971	2,460	4,431	1,696	2,045	3,741
Morappur	21,997	21,671	43,668	21,275	21,095	42,370	9,515	9,499	19,014	8,732	8,802	17,534
Buddireddippatti	7,040	6,544	13,584	6,985	6,636	13,621	2,089	2,293	4,382	1,876	2,031	3,907
Mallapuram	12,782	12,243	25,025	11,898	12,367	24,265	3,746	4,181	7,927	3,547	3,825	7,372
Lokur	586	628	1,214	1,991	1,654	3,645	98	127	225	225	272	497
Kadiampatti	8,004	7,936	15,940	8,919	9,185	18,104	1,891	1,959	3,850	1,634	1,850	3,484
Thinnappatti	8,689	7,941	16,630	13,329	11,840	25,169	1,653	1,958	3,611	1,725	1,776	3,501
Salem	81,532	81,795	163,327	85,843	86,804	172,647	57,569	60,280	1,17,849	54,295	57,032	1,11,327
Ariyanur	4,821	6,115	10,936	5,576	7,968	13,544	860	1,147	2,007	810	1,359	2,169
McDonald's Choultry	12,685	13,907	26,592	14,240	15,408	29,648	2,863	3,522	6,385	2,887	3,379	6,266
Sankaridrug	27,858	26,072	53,930	28,823	26,761	55,585	7,617	7,568	15,185	7,255	6,855	14,110
Anangur	3,996	3,543	7,539	6,312	6,956	13,268	414	452	866	525	647	1,172
Cauvery	6,357	6,339	12,696	8,682	10,373	19,055	963	1,343	2,306	834	1,287	2,121
Erode	94,715	94,670	189,385	99,949	96,949	196,898	64,175	56,509	1,20,684	60,773	57,534	1,18,317
Totiapalaiyam	2,420	2,350	4,770	2,445	3,102	5,547	233	283	516	203	269	472

Perundurai...	22,497	20,351	42,848	23,368	20,246	43,614	5,269	5,172	10,441	4,798	4,376	9,174
Viziamangalam	6,038	6,192	12,230	7,231	7,307	14,538	1,592	1,662	3,254	1,639	1,731	3,370
Uttukuli	13,686	14,058	27,744	13,843	13,886	27,729	4,157	4,619	8,776	3,815	4,054	7,869
Kulipalaiyam	1,688	2,355	4,043	1,992	2,602	4,594	367	573	940	307	503	810
Tiruppur	37,336	37,820	75,156	36,695	37,714	74,409	15,807	16,398	32,205	15,063	14,577	29,640
Mangalam	18,480	18,301	36,731	16,947	16,597	33,544	5,675	6,059	1,1,734	4,609	4,902	9,511
Somanur	11,050	11,563	22,613	11,748	11,886	23,634	2,783	3,210	5,993	2,588	2,914	5,502
Sulur	11,945	11,796	23,741	11,292	11,606	22,898	2,996	3,180	6,176	2,405	2,502	4,907
Singanallur	10,145	9,773	19,918	10,867	10,246	21,113	2,283	2,418	4,701	1,996	2,090	4,086
Podanur Junction	55,602	56,168	111,770	60,620	61,415	122,035	17,746	18,221	35,967	15,892	16,750	32,642
Coimbatore...	129,802	122,660	252,462	122,417	116,842	239,259	60,645	57,295	1,17,940	52,866	50,274	1,03,140
Tudiyalur	10,919	11,302	22,221	12,948	13,324	26,272	1,860	2,029	3,889	1,688	1,920	3,608
Periyanaiakanpalaiyam	7,440	8,458	15,898	8,728	10,095	18,823	1,081	1,344	2,425	1,030	1,278	2,308
Karaimadai...	14,516	13,414	27,930	15,286	14,202	29,488	2,497	2,760	5,257	2,271	2,326	4,597
Mettupalaiyam	55,873	64,513	120,386	56,647	63,926	120,573	68,479	1,07,188	1,75,667	49,913	75,973	1,25,886
Madukarai	6,299	7,371	13,670	5,539	6,728	12,267	1,575	1,750	3,325	1,292	1,405	2,697
Walayar	4,424	5,119	9,543	4,757	4,662	9,419	983	1,196	2,179	784	886	1,670
Kanyikod	11,127	10,748	21,875	10,291	9,833	20,124	3,462	3,607	7,069	2,761	2,927	5,688
Olavakkot Junction	44,076	49,978	94,054	40,886	47,696	88,582	17,802	20,756	38,558	16,235	19,443	35,678
Palghat	48,590	39,772	88,362	48,187	37,897	86,084	30,335	21,821	52,156	29,277	21,483	50,760
Parli	11,091	12,371	23,462	10,346	12,065	22,411	3,026	3,285	6,311	2,788	3,083	5,871
Mankarai	11,753	12,796	24,549	11,082	13,133	24,215	3,473	4,110	7,583	3,843	4,837	8,680
Lakkiti	18,475	19,967	38,442	16,441	17,496	33,937	5,133	5,593	10,726	4,565	4,979	9,544
Ottappalam...	29,832	28,378	58,210	28,971	27,682	56,653	7,973	7,562	15,535	7,673	7,806	15,479
Shoranur	33,100	32,582	65,682	33,275	32,904	66,179	21,255	20,447	41,702	24,881	22,903	47,784
Pattambi	28,440	26,511	54,951	27,054	26,179	53,233	12,330	12,288	24,618	11,041	12,836	23,877
Pallipuram	10,713	10,841	21,554	10,285	10,106	20,391	2,488	2,488	4,976	2,370	2,338	4,708
Kuttippuram	10,958	11,196	22,154	10,444	10,742	21,186	2,897	2,972	5,869	2,899	2,968	5,867
Edakkolam	14,861	17,230	32,091	15,523	17,902	33,425	4,206	5,361	9,567	4,273	4,889	9,162
Tirur	45,659	43,456	89,115	44,631	42,174	86,805	14,569	19,647	34,216	13,040	17,678	30,718
Tanore	19,933	20,274	40,207	23,124	23,038	46,162	3,618	5,313	8,931	3,457	6,321	9,778
Parpanangadi	44,395	44,120	88,515	49,157	48,415	97,572	7,810	10,905	18,715	6,904	7,459	14,363
Kadalundi	13,007	13,518	26,525	14,044	14,284	28,328	1,564	1,992	3,556	1,264	1,481	2,745
Ferok	45,403	47,098	92,501	52,304	54,716	107,020	5,859	6,538	12,397	5,566	5,990	11,556
Kallayi	20,162	30,816	50,978	24,004	35,228	59,232	3,877	7,864	11,741	4,556	7,794	12,350
Calicut	100,337	91,851	192,188	101,936	91,575	193,511	62,264	65,502	1,27,766	60,512	52,126	1,12,638
Southern Mahratta Railway ...	39,793	48,727	88,520	37,849	45,681	83,530	90,534	98,737	1,89,271	76,679	77,692	1,54,371
Great Indian Peninsula Railway...	15,856	18,004	33,860	19,648	19,897	39,545	1,00,185	1,02,038	2,02,223	1,15,096	93,907	2,08,913
South Indian Railway	71,066	86,768	157,834	62,968	84,701	147,669	82,962	87,696	1,70,658	86,373	92,449	1,78,822
Kolar Gold Fields State Railway...	34,641	41,356	75,997	48,956	48,341	97,297	26,890	40,278	67,168	38,251	49,814	88,065
Madras Ennur Railway	...	...	...	26,312	22,471	48,783	...	...	...	724	689	1,413

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 31st December 1895 and 1896, together with the gross traffic receipts.*

STATIONS.	Tonnage of Goods and Railway Materials.						Goods Receipts.						Gross Receipts, Coaching & Goods, Inwards and Outwards.	
	1895.			1896.			1895.			1896.				
	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.	Inwards.	Outwards.	Total.	1895.	1896.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Madras ...	...	...	...	...	...	...	3,728	2,885	6,613	5,567	2,385	7,952	7,26,672	7,10,977
Salt Cotaurs ...	83,037	51,321	134,358	88,877	45,343	134,220	7,05,399	5,57,217	12,62,616	7,47,113	4,74,430	12,21,543	12,62,616	12,21,543
Rayapuram ...	319	75,186	75,505	809	87,794	88,603	961	4,09,935	4,10,896	915	3,74,377	3,75,292	4,45,090	3,98,671
Veyasarpaudy† ...	...	...	...	...	...	...	...	...	...	...	...	...	...	76
Washermenpet Junc	...	...	...	2	...	2	4	1	5	...	30	10	40	27,542	27,548
Perambur ...	962	299	1,261	1,140	111	1,251	2,964	598	3,562	2,434	879	3,313	32,739	35,922
Connur ...	...	18	18	2	1	3	3	81	84	22	18	40	6,071	5,810
Ambattur ...	22	6,812	6,834	2	4,806	4,808	60	3,506	3,566	135	2,512	2,647	7,069	5,965
Avadi ...	436	2,413	2,849	332	3,604	3,936	2,637	1,751	4,388	2,070	2,260	4,330	25,564	24,145
Tinnanur ...	49	14	63	96	29	125	168	46	214	386	88	474	10,619	11,249
Sevvapet Road ...	27	191	218	55	57	112	93	201	294	164	106	270	5,960	5,285
Trivellore ...	1,400	1,146	2,546	1,240	685	1,925	7,991	2,148	10,139	6,905	1,570	8,475	59,795	57,448
Kadambattur ...	341	799	1,140	293	899	1,192	1,231	2,184	3,415	986	1,779	2,765	12,385	11,202
Manur ...	39	91	130	40	183	223	156	214	370	192	335	527	3,939	4,002
Chinnamapet ...	242	1,367	1,609	165	1,107	1,272	811	2,614	3,425	567	2,092	2,659	9,536	8,636
Mosur ...	3	34	37	13	119	132	23	106	129	68	333	401	1,686	2,012
Arkonam Junction..	2,014	1,950	3,964	1,255	1,801	3,056	8,737	8,180	16,917	6,306	6,956	13,262	1,43,566	1,50,590
Tiruttani ...	1,851	2,087	3,938	1,699	2,663	4,362	10,836	5,221	16,057	9,925	6,679	16,604	55,039	49,146
Ponpadi ...	28	22	50	24	34	58	140	80	220	119	144	263	1,751	1,892
Nagari ...	1,101	1,269	2,370	1,205	1,640	2,845	5,060	4,464	9,524	5,610	5,654	11,264	2,6861	27,164
Vepagunta ...	9	90	99	31	61	92	29	382	411	85	289	374	2,251	2,247
Puttur ...	753	3,887	4,640	636	2,545	3,231	2,868	12,170	15,038	2,368	7,905	10,273	32,738	26,640
Pudi ...	236	1,598	1,834	277	863	1,140	867	6,933	7,800	886	3,821	4,707	16,416	12,932
Renigunta Junction	836	2,674	3,510	570	3,376	3,946	7,267	11,098	18,365	3,563	14,616	18,179	1,17,786	1,24,563
Mamanduru ...	7	710	717	1	473	474	40	2,658	2,698	12	1,835	1,847	3,657	2,606
Peddapadu ...	39	1,736	1,775	59	1,113	1,172	153	6,517	6,670	208	4,209	4,417	9,141	7,006
Koduru ...	345	1,006	1,351	553	1,459	2,012	1,490	5,737	7,227	1838	6,494	8,332	18,181	18,736
Urampadu ...	160	501	661	104	1,154	1,258	707	3,138	3,845	457	5,699	6,156	8,252	10,720
Reddipalle ...	38	405	443	38	188	226	276	2,663	2,939	239	1,032	1,271	10,318	7,933
Razampeta ...	1,129	1,741	2,870	1,060	1,911	2,971	5,927	12,770	18,697	5,379	13,849	19,228	36,638	36,952
Nandalur ..	79	128	207	513	158	671	435	1,043	1,478	1,207	974	2,181	12,577	13,437

† Opened 1st December 1896.

Vontimitta ...	101	402	503	44	289	333	490	3,262	3,752	347	2,690	3,037	15,606	14,719
Siddhavattam ...	...	28	28	2	23	25	5	132	137	25	151	176	873	888
Cuddapah	4,077	3,637	7,714	6,297	5,177	11,474	28,784	29,471	58,255	37,516	32,448	69,964	1,20,225	1,31,143
Krishnapuram ...	541	811	1,352	714	692	1,406	3,480	6,892	10,372	3,533	6,929	10,462	15,182	15,323
Gangayapalli ...	295	144	439	128	53	181	2,492	702	3,194	847	256	1,103	6,343	3,781
Kamalapuram ...	604	383	987	649	192	841	3,032	2,016	5,048	3,500	1,616	5,116	14,034	13,813
Yerragudipadu ..	7	11	18	71	42	113	32	35	67	307	190	497	1,748	2,204
Yerraguntla ..	1,311	4,942	6,253	4,823	4,676	9,499	10,388	32,626	43,014	33,089	28,732	61,821	67,121	86,241
Kalamala ...	7	16	23	18	27	45	31	144	175	93	230	323	2,270	2,274
Muddanuru... ...	948	534	1,482	2,076	738	2,814	6,508	6,423	12,931	14,230	12,340	26,570	24,563	38,157
Mangapatnam ...	21	46	67	210	66	276	70	351	421	707	1,123	1,830	2,035	3,261
Kondapuram ...	256	1,059	1,315	475	173	648	1,664	8,949	10,613	2,128	1,436	3,564	18,878	10,270
Regadipalli* ...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,502
Vanganur	68	60	128	92	136	228	260	347	607	437	867	1,304	3,980	4,297
Tadpatri	2,173	2,468	4,641	3,546	2,269	5,815	15,690	24,892	40,582	22,943	23,000	45,943	63,976	65,197
Penneru	72	188	260	85	459	544	386	887	1,273	382	1,348	1,730	5,039	5,010
Rayalcheruvu ...	334	268	602	203	224	427	1,754	2,039	3,793	1,473	1,479	2,952	10,303	9,106
Jakkalacheruvu ...	2	4	6	5	31	36	20	25	45	23	268	291	1,415	1,595
Gooty	2,117	1,320	3,437	1,127	962	2,089	15,420	14,363	29,783	10,081	9,206	19,287	56,491	44,313
Patakottacheru ...	4	5	9	1	56	57	49	23	72	7	359	366	1,277	1,686
Timmancherla ...	491	1,931	2,422	445	1,266	1,711	3,481	18,907	22,388	4,497	14,422	18,919	28,701	24,145
Guntakal Junction...	479	322	801	921	773	1,694	7,053	1,810	8,863	9,713	7,248	16,961	85,311	83,200
Nancherla	217	247	464	63	433	496	868	888	1,756	427	1,363	1,790	3,386	3,239
Molagavalli ..	63	130	193	30	241	271	139	908	1,047	109	1,451	1,560	2,381	2,936
Aspari	132	189	321	63	174	237	556	2,322	2,878	268	534	802	5,979	3,561
Nagarur	2	1	3	1	1	2	19	4	23	5	7	12	1,336	1,048
Adoni	5,207	4,207	9,414	10,581	8,196	18,577	30,059	39,059	69,118	46,073	61,037	1,07,110	1,03,723	1,45,225
Kupgal	51	15	66	87	121	208	338	131	469	393	911	1,304	3,113	4,076
Kosgi	381	217	598	427	215	642	2,517	950	3,467	2,514	1,357	3,871	9,814	10,466
Tungabhadra ...	21	94	115	28	34	62	191	193	384	190	214	404	7,438	9,900
Matmari	156	483	639	216	554	770	340	4,726	5,066	485	3,197	3,682	9,325	8,284
Raichur Junction ...	2,534	4,132	6,666	5491	2,261	7,752	29,548	48,091	77,639	55,422	29,833	85,255	1,36,422	1,50,853
Munnal	352	483	835	296	295	591	1,564	1,291	2,855	1,187	837	2,024	8,750	6,975
Sholinghur	658	2,094	2,752	526	3,551	4,077	3,350	5,313	8,663	2,467	8,506	10,973	29,114	28,981
Thalangai ...	1	5	6	3	13	16	8	22	30	13	56	69	965	855
Arcot	18,545	6,408	24,953	9,943	8,414	18,357	45,841	41,853	87,694	53,926	52,241	1,06,167	1,60,363	1,72,864
Ponnai Road ...	5	1	6	4	11	15	33	10	43	21	55	76	1,385	1,442
Tiruvallam	151	240	391	63	589	652	922	1,283	2,205	570	2,067	2,637	13,115	15,355
Katpadi Junction ...	7,876	11,273	19,149	6,403	10,653	17,056	53,681	71,147	1,24,828	55,580	82,053	1,37,633	2,86,416	2,94,307
Vellore O. A. ...	482	349	831	1,023	1,614	2,637	4,361	2,954	7,315	6,040	11,773	17,813	7,355	17,925
Latteri ...	...	...	...	2	9	11	...	...	...	10	80	90	1,669	1,623
Virinchipuram ...	150	230	380	94	223	317	1,292	1,053	2,345	851	865	1,716	11,547	11,333
Gudiyattam... ...	2,967	2,176	5,143	2,538	2,335	4,873	19,680	13,673	33,353	18,769	13,288	32,057	71,062	66,966
Vallathoor	241	174	415	150	185	335	1,621	1,038	2,659	1,441	893	2,334	7,675	7,396
Mailpatti	866	1,573	2,439	870	1,155	2,025	6,383	9,128	15,511	5,702	8,167	13,869	29,888	28,284
Ambur	2,325	2,599	4,924	2,238	1,837	4,075	19,914	15,263	35,177	17,700	12,230	29,930	70,976	63,819
Vinnamangalam ...	11	468	479	2	51	53	85	4,457	4,542	41	475	516	6,096	2,185
Vaniyambadi ...	4,752	3,615	8,367	4,465	3,185	7,650	32,483	22,821	55,304	27,662	20,501	48,163	98,252	86,776
Kettandapatti ...	54	80	134	23	88	111	134	508	642	126	421	547	1,901	2,321

* Opened 1st July 1896.

The following Table shows the Goods Traffic in and out of the following Stations on the Madras Railway, for the half-years ending, &c.—contd.

STATIONS.	Tonnage of Goods and Railway Materials. 1895. Inwards.	1895. Outwards.	1895. Total.	1896. Inwards.	1896. Outwards.	1896. Total.	Goods Receipts. 1895. Inwards.	1895. Outwards.	1895. Total.	1896. Inwards.	1896. Outwards.	1896. Total.	Gross Receipts, Coaching & Goods. Inwards and Outwards. 1895.	1896.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Jalarpet Junction...	446	1,270	1,716	388	748	1,136	2,042	3,954	5,996	1,857	2,860	4,717	64,867	65,295
Patchur	175	839	1,014	467	649	1,116	635	1,810	2,445	1,612	1,880	3,492	9,227	10,708
Mulanur	19	1,349	1,368	13	1,184	1,197	65	1,361	1,426	44	1,052	1,096	2,907	2,724
Kuppam	951	4,503	5,454	1,010	2,302	3,312	5,348	9,597	14,945	4,907	7,785	12,692	33,900	30,291
Gudupalli	198	122	320	168	118	286	225	661	886	160	700	860	4,076	4,131
Bisanattam ...	3,943	20	3,963	2,307	45	2,352	12,238	202	12,440	5,604	266	5,870	17,820	13,689
Kamasamudram ...	1,043	197	1,240	1,780	359	2,139	1,581	1,009	2,590	1,747	952	2,699	9,805	9,525
Bowringpet Junc...	10,103	5,974	16,077	8,797	4,477	13,274	67,283	34,795	1,02,078	48,301	23,535	71,836	1,73,033	1,44,232
Tyakal	76	492	568	113	769	882	321	1,667	1,988	475	2,004	2,479	7,482	7,691
Malur	482	3,454	3,936	589	6,548	7,137	3,231	15,969	19,200	3,636	17,604	21,240	43,460	47,272
Devankundi ...	123	680	803	143	1,928	2,071	694	2,223	2,917	571	4,013	4,584	8,013	9,249
Whitefield ...	414	4,511	4,925	376	3,103	3,479	3,532	13,568	17,100	3,358	12,795	16,153	28,025	26,933
Krishnarajapuram..	190	2,832	3,022	189	883	1,072	2,000	8,803	10,803	2,480	3,742	6,222	16,125	11,459
Bangalore Cant. ...	12,250	4,230	16,480	12,991	4,552	17,543	1,29,209	55,106	1,84,315	1,23,920	48,411	1,72,331	4,97,226	4,50,835
Do. City Junc.	9,078	13,818	22,896	10,377	10,976	21,353	85,371	1,10,970	1,96,341	1,06,101	1,03,952	2,10,053	3,06,521	2,88,463
Bangalore Pettah...	...	...	...	...	...	...	...	...	...	...	...	...	340	12,883
Tirupattur ...	4,393	6,976	11,369	4,290	8,208	12,498	27,563	32,003	59,566	26,036	34,396	60,432	1,14,879	1,05,441
Kagankarai ...	6	95	101	21	54	75	38	697	735	111	353	464	4,582	3,738
Samalpatti ...	205	545	750	251	823	1,074	1,550	3,341	4,891	1,801	5,374	7,175	14,355	16,509
Kallavi	67	512	579	37	603	640	419	3,288	3,707	184	3,414	3,598	8,142	7,339
Morappur ...	1,377	2,623	4,000	1,411	3,104	4,515	11,126	15,328	26,454	11,014	19,461	30,475	45,468	48,009
Buddireddippatti ...	42	449	491	32	480	512	202	1,778	1,980	168	2,742	2,910	6,362	6,817
Mallapuram ...	60	399	459	69	747	816	514	1,856	2,370	406	3,102	3,508	10,298	10,880
Lokur ...	2	14	16	...	48	48	4	80	84	2	257	259	309	756
Kadiampatti ...	267	354	621	241	486	727	1,756	2,142	3,898	1,571	1,902	3,473	7,748	6,957
Thinnappatti ...	38	47	85	17	47	64	107	72	179	66	124	190	3,790	3,691
Salem	13,669	3,672	17,341	11,997	7,456	19,453	1,13,647	27,466	1,41,113	97,524	51,626	1,49,150	2,58,963	2,60,477
Ariyanur	14	7	21	1	26	27	47	65	112	5	350	355	2,119	2,524
McDonald's Choultry.	353	243	596	298	304	602	2,514	1,571	4,085	2,110	2,258	4,368	10,470	10,634
Sankaridrug ...	2,147	3,156	5,303	1,892	3,250	5,142	13,757	15,038	28,795	11,522	14,584	26,106	43,980	40,216
Anangur ...	1	5	6	3	13	16	7	17	24	9	36	45	886	1,217
Cauvery	149	224	373	189	741	930	1,093	1,664	2,757	1,372	5,328	6,700	5,063	8,821
Erode	7,704	3,159	10,863	5,770	5,493	11,263	61,960	33,739	95,699	41,100	47,613	88,713	2,16,384	2,07,020
Totiapalayam ...	...	23	23	...	20	20	...	178	178	...	177	177	694	649
Perundurai ...	528	168	696	275	116	391	4,346	1,788	6,134	2,037	1,116	3,153	16,575	12,327
Viziamangalam ..	14	1	15	26	18	44	69	7	76	109	101	210	3,329	3,580
Uttukuli	345	941	1,286	317	409	726	2,354	4,053	6,407	1,703	2,258	3,961	15,182	11,830
Kulipalaiyam ...	15	63	78	11	69	80	91	620	711	70	704	774	1,651	1,584
Tiruppur	8,539	6,056	14,595	6,010	6,276	12,286	76,172	61,535	1,37,707	45,221	66,150	1,11,371	1,69,913	1,41,011
Mangalam ...	5,545	449	5,994	3,601	345	3,946	45,613	3,286	48,899	27,282	2,795	30,077	60,633	39,588
Somanur	230	442	672	274	533	807	1,897	3,419	5,316	1,519	4,931	6,450	11,309	11,952
Sulur	131	647	778	114	666	780	599	5,900	6,499	543	6,196	6,739	12,676	11,646
Singánallúr ...	615	542	1,157	352	551	903	5,107	5,519	10,626	2,530	4,821	7,351	15,327	11,437
Podanur Junction...	1,393	971	2,364	584	1,097	1,681	4,684	6,193	10,877	2,559	7,200	9,759	46,845	42,401
Coimbatore ...	24,250	5,886	30,136	16,718	6,386	23,104	1,17,315	43,411	1,60,726	89,999	43,884	1,33,883	2,78,667	2,37,023
Tudiyalur ...	100	284	384	62	375	434	210	709	919	179	1,973	2,152	4,808	5,760
Periyanayakkanpalayam	11	...	11	3	5	8	116	4	120	14	93	112	2,546	2,420
Karaimadai ...	336	265	601	313	464	777	1,841	1,459	3,300	1,006	3,194	4,200	8,557	8,797
Mettupalaiyam ...	10,068	4,699	14,767	9,138	4,772	13,910	98,862	63,377	1,62,239	81,126	44,287	1,25,413	3,37,907	2,51,299
Madukarai ...	28	365	393	57	255	312	146	2,239	2,385	227	1,589	1,816	5,710	4,513
Walayar	136	1,439	1,575	51	572	623	508	1,367	1,875	415	727	1,142	4,054	2,812
Kanyikod ...	262	3,219	3,481	204	3,177	3,381	1,772	4,753	6,525	1,232	4,881	6,113	13,594	11,801
Olavakkot Junction.	569	6,615	6,984	291	4,908	5,199	1,197	36,631	37,828	867	22,901	23,768	76,388	59,447
Palghat	9,165	8,204	17,369	7,961	10,493	18,454	64,650	56,820	1,21,470	48,648	55,836	1,04,484	1,73,626	1,55,244
Parli	724	1,431	2,155	295	1,906	2,201	4,682	6,034	10,716	1,367	8,110	9,477	17,027	15,348
Mankarai ...	137	282	419	152	419	571	608	1,387	1,995	638	2,462	3,100	9,578	11,780
Lakkiti	554	367	921	295	435	730	2,968	2,169	5,137	1,432	1,779	3,211	15,863	12,755
Ottappalam... ...	808	1,075	1,883	608	1,610	2,218	3,316	5,136	8,452	2,055	6,864	8,919	23,986	24,398
Shoranur ...	1,992	1,265	3,257	1,796	1,236	3,032	11,337	10,144	21,481	10,427	10,953	21,380	63,183	69,161
Pattambi ...	652	1,293	1,945	404	884	1,288	2,456	11,578	14,034	1,747	7,795	9,542	38,652	33,419
Pallipuram ...	45	100	145	25	186	211	162	833	995	130	1,714	1,844	5,971	6,552
Kuttippuram ...	272	100	372	247	203	450	1,490	525	2,015	1,223	1,370	2,593	7,884	8,460
Edakkolam ...	148	502	650	108	517	625	516	3,579	4,095	429	4,039	4,468	13,662	13,630
Tirur	5,042	5,977	11,019	4,343	6,715	11,058	35,211	37,184	72,395	26,462	36,137	62,599	1,06,610	93,317
Tanore	1,379	1,429	2,808	1,487	1,522	3,009	6,425	14,944	21,369	5,389	13,272	18,661	30,301	28,439
Parpanangadi ...	1,434	1,407	2,841	1,425	1,462	2,887	6,865	12,524	19,389	6,385	12,070	18,455	38,104	32,818
Kadalundi ...	39	511	550	73	539	612	196	2,399	2,595	306	2,504	2,810	6,151	5,555
Ferok	2,579	1,910	4,489	2,089	2,034	4,123	18,378	11,972	30,350	14,755	14,593	29,348	42,748	40,904
Kallayi	2,096	10,901	12,997	3,621	7,442	11,063	15,298	47,672	62,970	19,051	53,056	72,107	74,711	84,457
Calicut	11,156	13,769	24,925	14,502	11,883	26,385	1,09,827	99,982	2,09,809	1,12,798	85,881	1,98,679	3,37,575	3,11,317
S. M. Railway ...	11,694	35,914	47,608	12,732	40,571	53,303	1,42,445	2,79,603	4,22,048	1,32,992	2,85,764	4,18,756	6,01,319	5,73,127
G. I. P. do. ...	8,332	12,383	20,715	17,722	14,146	31,868	91,491	1,56,171	2,47,662	1,51,116	2,21,426	3,72,542	4,59,885	5,81,545
S. I. do. ...	25,016	14,169	39,185	26,044	20,692	46,736	1,48,330	74,667	2,22,997	1,42,983	1,07,393	2,50,376	3,93,652	4,29,198
K. G. F. S. Ry. ...	68,984	368	69,352	67,510	295	67,805	2,87,786	2,059	2,89,845	2,84,482	1,591	2,86,073	3,57,013	3,74,138
Madras-Ennur Ry.	...	...	...	20,878	1,661	22,539	...	...	...	14,343	4,041	18,384	...	19,797

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.

Madras Railway,
Traffic Manager's Office,
Madras, 22*nd March* 1897.

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

Lawrence Asylum Press.

MADRAS RAILWAY COMPANY,

No. 8053/69. TELEGRAPH ENGINEER'S OFFICE,

ARKONAM, 13*th March* 1897.

THE ACTING AGENT AND MANAGER,
Madras Railway.

DEAR SIR,

REPORT FOR THE HALF-YEAR ENDING 31ST DECEMBER 1896.

I beg to submit my report for the half-year ending 31st December 1896.

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 :—

Tinnanur.	Ambur.
Washermenpet.	Rayapuram.

A needle instrument was fixed at Manur in connection with No. 2 Circuit, Madras and Arkonam.

Block instruments were fixed at Bisanattam on the Bangalore Branch.

A Morse instrument was connected temporarily at Koduru while through traffic was suspended owing to breaches of the line in November 1896.

Block ticket issuing instruments with arrival semaphore slides were brought into use at Tondiarpet.

The following instruments were brought into use at Washermenpet :—

Block instruments in connection with Rayapuram and Veyasarpaudy sections on the Rayapuram Branch.

A Morse sounder in connection with No. 4 Circuit, Rayapuram and Perambur.

Two wires were erected between Rayapuram Station and Rayapuram Block House, and telephones connected at Rayapuram Station, Rayapuram Block House and Washermenpet.

Telephonic communication was established between the Telegraph Engineer's Office, his bungalow, and the Engineering Workshops.

Electric Starting Semaphores.

The undermentioned Electric Starting Semaphores were renewed :—

North-West Line.

Koduru	North.
Cuddapah	North.

Electric Starting Semaphores were erected at Bisanattam on the Bangalore Branch.

Comparative Statement of percentage of Semaphore failures for the Half-year ending 31st December 1896.

—	Percentage of failures to the number of operations for the	
	Half-year ending 31st December 1895.	Half-year ending 31st December 1896.
Due to station staff	0·06 per cent.	0·06 per cent.
Due to faults in apparatus caused by lightning and interference without Inspector's knowledge	0·02 „	0·02 „
Due to faults in apparatus	0·09 „	0·07 „
	0·17 per cent.	0·15 per cent.

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 68th to 129th mile, South-West Line.

Some Siemen's posts, broken at the junction between the top and the socket, were renewed on the South-West Line.

The alignment and termination of the wires at Tiruvallur, Bangalore City, and Siddavattam had to be altered in consequence of work done by the Engineering Department.

The number of telegraph posts on the Cheyair Bridge was increased, so as to lessen the risk of contact between the Government and the Company's wires, which run on the same poles.

Lightning Conductors.

Lightning conductors were erected on all new buildings of any importance, and the conductors on the old buildings are maintained in an efficient state.

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 31st December 1896	1	36	37
Half-year ending 31st December 1895	2	54	56

Of the accidental interruptions—

8 were due to Instrumental faults.
17 „ to Line faults.
1 was due to Battery fault.
1 was due to Lightning.
7 were due to unknown causes
2 „ to breakage of posts by a derailed train.

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 31st December 1896... ...	857½	124	11	74	85
Half-year ending 31st December 1895... ...	848	119	8	45	53

Of the accidental interruptions—

29 were due to Instrumental faults.
24 „ to Line faults.
4 were due to Battery faults.
17 „ to Lightning.

A good number of the interruptions under the heading of "Line faults" were due to the very wet weather which was experienced at different parts of the Railway during the months of November and December.

"Lightning" was also responsible for 17 block failures. Every block instrument is guarded by a "lightning protector" of a more or less universal pattern, but it is evident that there is room for improvement in this direction.

Intercommunication.

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

—	Vehicles newly fitted.	Vehicles refitted.
Covered Goods...	60	...
Timber Trucks...	27	...
Composite Carriages	2	...
Engines	1	11
Baggage Van	1	1
3rd Class Carriages	10	5
Ballast Wagons	9	...
Governor's Saloon	...	1
1st Class Carriages	...	3
Consulting Engineer's Carriage	...	1
Brake Vans	...	6
Powder Brake Van	...	1
Agent and Manager's Carriage	...	1

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

—	Half-year ending 31st Dec. 1895.	Half-year ending 31st Dec. 1896.
Total mileage of fitted trains	1,226,886	1,210,923
Mileage of fitted trains with complete communication...	1,215,209	1,202,479
Percentage of interruption	0·95	0·70

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

Date.		Particulars taken from the Guards' Journals.
1896.		**Fire.**
July ...	7	The 13-43 o'clock train was stopped at $\frac{139}{16}$ mile to extinguish fire in a Horse Box.
		Safety of Passengers and Public Property.
August ...	13	The 18-40 o'clock mail was stopped at 222nd mile by a passenger who thought his boy had fallen out of the train.
		Interference.
November ...	27	The 8-10 o'clock mail was stopped at $\frac{293}{3}$ mile by soldiers, who denied the matter and were reported to the Officer in charge.
		Derangement in the Rolling Stock.
October ...	25	The 18-10 o'clock train was stopped at $\frac{187}{18}$ mile to rectify a defect in third class carriage No. 70.

Electric Clocks.

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

	1896.						Mean of six months.
	July.	August.	September.	October.	November.	December.	
Clock Failures. Caused by circumstances beyond Signallers' control ...per cent.	0·40	6·65	2·08	1·61	1·04	7·59	3·23
Clock Failures. Caused through the negligence of Signallers, per cent.	0·61	1·01	3·33	3·43	0·42	0·57	1·56
Clock errors two minutes and over ... .per cent.	0·00	0·00	0·00	0·20	0·21	0·00	0·07
Clock errors under two minutes, but one minute and over, per cent.	0·00	0·00	0·00	0·40	0·83	0·57	0·30
Clock errors under one minute, per cent.	98·79	91·94	94·59	93·96	97·50	90·70	94·58
Clock stopped ...per cent.	0·20	0·40	0·00	0·40	0·00	0·57	0·26
	100·00	100·00	100·00	100·00	100·00	100·00	100·00

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,
for *Telegraph Engineer.*

MADRAS RAILWAY COMPANY,
MEDICAL OFFICER'S OFFICE,
RAYAPURAM, *15th March* 1897.

No. 355.

To

THE ACTING AGENT AND MANAGER,
Madras Railway.

SIR,

I have the honour to submit my report on the health of the Company's employés and on the sanitation of the stations on the line for the six months ending 31st December 1896.

There have been about 300 more cases treated during the period under review than in the corresponding period of last year, the increase being due to the greater frequency of bowel-complaints and to an increase in accidents and miscellaneous cases. The figures for the two periods are 5,674 and 5,962, respectively.

Mortality.—There were 26 cases of deaths amongst the Company's employés during the half-year, 9 of which were under treatment at the time by the Company's medical staff, while the others were treated by private native practitioners.

Cholera.—This disease in a sporadic form has appeared all over the line, but the Company's Apothecaries succeeded, in every instance, in stamping it out speedily and in preventing it from becoming epidemic. There were 17 cases in all, as against 1 in 1895, *viz.*, 3 at Gooty, 2 at Renigunta, 2 at Arkonam, 3 at Olavakkot, 6 at Jalarpet, and 1 at Rayapuram. Six of the cases terminated fatally.

Small-pox.—There have been six cases of small-pox during the half-year, which is the same number as in 1895. Two cases happened at Perambur, three at Gooty and one at Rayapuram.

Quarantine.—It was found necessary during the half-year under review to place ten employés in quarantine owing to small-pox being prevalent among the members of their families, and the amount of wages paid to them was Rs. 168-4-0.

Dispensary, Arkonam.—The dispensary bungalow has had a room added to it in which all the dispensary work is now carried on. The former dispensary room has been thrown into the Apothecary's dwelling.

Staff.—The Medical and Conservancy staff have discharged their duties, as a rule, to my complete satisfaction.

I have made the usual inspection of all the dispensaries on the line as well as the conservancy of stations and found the same in a satisfactory condition.

Appended is a table giving a comparative statement of the number and kinds of cases treated during the corresponding half-years of 1895 and 1896, 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 31st December 1895 and 31st December 1896.

Date.	Small-pox.	Measles.	Influenza.	Simple Fever.	Malarial Fever.	Remittent Fever.	Cholera.	Choleraic Diarrhœa.	Dysentery.	Diarrhœa.	Accidents and other Diseases.	Total treated.
1895.												
July	1	...	8	42	290	...	...	...	38	62	510	951
August	...	...	9	45	348	...	...	...	41	63	547	1,053
September	1	...	...	41	294	1	1	...	37	41	482	898
October	1	2	...	37	335	...	...	...	26	35	508	944
November	1	...	...	41	369	...	...	...	22	24	497	954
December	2	1	...	40	328	...	...	...	30	23	450	874
Grand Total ...	6	3	17	246	1,964	1	1	...	194	248	2,994	5,674
1896.												
July	1	...	...	37	237	...	5	...	40	85	565	970
August	2	...	1	39	258	...	5	...	63	63	616	1,047
September	1	...	...	27	289	1	1	...	43	49	653	1,064
October	1	1	10	42	304	1	1	...	35	49	602	1,046
November	...	...	...	32	235	...	1	...	41	38	560	907
December	1	...	...	17	265	1	4	...	40	51	549	928
Grand Total ...	6	1	11	194	1,588	3	17	...	262	335	3,545	5,962

MADRAS RAILWAY.

Return of Vaccinations for the half-year ending 31st December 1896.

Number vaccinated.	Traffic Department.				Locomotive Department.				Auditor's Department.				Engineer 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.
94	26	...	14	3	12	...	12	5	11	...	...	...	1	...	6	4

(R.) Form No. 3.

PUBLIC WORKS DEPARTMENT,

RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following

Report by Heads of Departments of the Madras Railway for the half year ended the 31st Dec/96

Ordered that six copies of the Report by Heads of Departments of the Madras Railway for the half year ended the 31st Dec 1896 be forwarded to the Govt of India.

To The Agent & Secy, M&S.M. Ry. Co. Accountant Gen. Madras

G.O. No. 315. R. 30th April/97

Forwarded.

To The Secy to Govt of India P.W.D. Simla.

Documents accompg. 6 copies of the report referred to

0/36