Public Works (1899) Department.

RAILWAY BRANCH.

G.O., No. 720 Ry.

DATED 1st July

[Despatch Abstract.]

Narrative memorandum for Part II of the Admn Report on Indian Rys. — Forwarding to the Govt of India 6 Copies of the — for 1898-99 relating to Railways under the Control of the Govt of Madras.

Indexed.

[P. W. Ry. 1. 760—25-8-99.]

BACK PAPERS.

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

FURTHER PAPERS.

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

Narratives Memorandum of Part II

Part of the Administration Report on Railways in India for the year 1898-99.

2557 9
16-5-99

Madras Presidency.

Chapter I - Stores

(For the Official year ending 31st March 1899)

Madras Railway, Standard Gauge.

General.- The cost of working the Stores Department during the year ended the 31st December 1898. was Rs 23,511 as compared with Rs 23,100 in 1897. On this Railway charges for handling and despatching Stores are not charged to the Stores Department but are added to the cost of the articles received.

There was no alteration in the control of Stores and Stores Depôt.

The purchases of Stores in India during 1898 aggregated Rs 17,75,628 of which Rs 1,14,748 were on account of English and Rs 16,60,878 for country Stores. The purchases in 1897 aggregated Rs 18,26,617.

The following Amounts were realized by the sale of Surplus and condemned Stores and Cinders during 1898 viz:-

	New	old	Total
	Rs	Rs	Rs
Surplus & condemned Stores	4220	65439	69659
Cinders	-	*1801	1801

* This sum was credited to Revenue.

as compared with Rs 94456 for Surplus and condemned Stores and Rs 6950 for Cinders realized in 1897.

The following Statement shews the consumption of Oils purchased Rs during 1898 as compared with the previous year:-

Description	1897 Total Quantity	1897 Total Expenditure	1897 Rate per Cwt during 1897	1898 Total Quantity	1898 Total Expenditure	1898 Rate per Cwt during 1898
	Cwt	Cwt	Rs A P	Cwt	Cwt	Rs A P
Castor Oil	3,418	3419	16 5 8	3747	3723	16 7 5
Linseed Oil	139	335	22 4 8	328	267	17 5 6
Mineral Oil	"	"	" " "	"	"	" " "
Kerosine Oil	3845	6008	8 3 9	6886	6721	7 14 2

Administration Report on the Railways in India for 1898-99.

Part II.

Chapter I - Stores - General working of the Stores Department during 1898-99.

South Indian Railway, Metre Gauge.

General.

The cost of working the Stores Department during the year ended the 31st December 1898 was Rs 48883 as compared with Rs 51,52 in 1897. The former amount includes Rs 6861 on account of the cost of landing and despatching imported stores at the port of Madras as compared with Rs 15057 on this account in 1897.

2/ There was no alteration in the Control of Stores and Store Depôts.

3/ The purchases of Stores in India during 1898 aggregated Rs 1439802 of which Rs 90732 were on account of English Stores and Rs 1349070 for Country Stores. The purchases in 1897 aggregated Rs 1264840.

4/ The following amounts were realized by the sale of Surplus and Condemned

Condemned Stores and Cinders during 1898 as compared with 1897.

	New	old	Total
Surplus and Condemned Stores	Rs 13405.	Rs 2109.	Rs 15514
Cck and Cinders	" 8018.	" 2815.	" 10833

as compared with Rs 8,102 for Surplus and Condemned stores and Rs 12853 for Coke and Cinders realized in 1897.

5/. The following statement shows the consumption of oils purchased te during 1898 as compared with the previous year :—

Description	1897				1898				
	Total quantity purchased Mds	Total quantity of purchased oil Consumed Mds	Rate per Md during 1897. Rs a p		Total quantity purchased Mds	Total quantity of purchased oil Consumed Mds	Rate per Md during 1898. Rs a p		
Castor oil.	3025	2755	18	5 8	2530	2598	18	8	9
Cocoanut oil.	4902	4902	18	13 5	4701	4671	17	13	5
Kerosine oil.	2166	2166	8	4 3	2230	2185	6	10	2
Lubricating oil.	1112	1112	9	0 5	1809	1604	9	10	6
Linseed oil.	588	402	25	15 5	492½	375½	24	13	7

17 H

Leave free for Chapter V

for Accountant Auditor

Madras Ry. and Extensions, Standard Gauge

(For the calendar year ending 31st Dec. 1898)

Capital ~~Transactions~~.

The total capital of the company at the close of 1898 was as follows: —.

Madras Railway.

	£	£	£
Capital authorised.			
Stock	10257630		
Loans	331910		
Capital not bearing interest.	7258		
Total capital authorised.		13584098	14819062
Capital Subscribed.			
Stock.	10257630		
Capital not bearing interest.	7258		
Debentures @ 3¼ per cent.	100000		
" @ 3 "	332700		
" @ 2¾ "	60000		
" @ 2½ "	405300		
Total Capital Subscribed		11162888	12177962
Capital Expenditure.			
Line open for Traffic		9523817	10389618
Working Stock		1436095	1566488
Stores etc		214344	233829
Capital Advance accts in Suspense.		216	235
Total Capital expenditure		11174040	12189862

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4 a

P.T.

Balance available.			
of Capital authorised.	£	2410058	
of Capital Subscribed	"	11152	
Madras Railway Extensions (under Construction)			
Capital authorised	£	£	Rs.
Loans	100000		
less Discount	1000	99000	1593989
Capital Subscribed.			
Debentures @ 2½ p.c.	100000		
less Discount.	1000	99000	1593989
Capital Expenditure.			
Line in course of Construction —.			
Calicut. Cannanore Extension		8812	137549
Arcot. Kanipet Branch		13202	201485
		22014	339034
Capital Advance Account in Suspense		6203	93862
Total capital Expenditure		28217	432896
Balance available.			
of Capital authorised		70783	
of Capital Subscribed		70783	

The expenditure of the year on final heads was

	Rs
Madras Railway	39822 9
Calicut. Cannanore Extension	86922
Arcot. Kanipet Branch.	201485

and the principal works on the main line upon which expenditure was incurred were: —.

Fitting

4b

	Rs
Fitting automatic Vacuum brake gear for 6 Engines 8200 Carriages	37863
Alterations & additions to Bangalore city Station	87623
Construction of Bogie composites 3rd Class Carriages and brake Vans	18905
do 5 composites and 5 third Class Carriages	12764

The following table shows interest charges for 1898 compared with net earnings: —.

		Rs
Interest — on Subscribed Capital	@ 5 p.c.	476911
do	@ 4¾ "	518161
do	@ 4½ "	245455
do	@ 3¾ "	35455
do	@ 3 "	108884
do	@ 2¾ "	18000
do	@ 2½	110536
		581340 2
Add. difference of Exchange for interest on Cost of Arcot. Kanipet Branch . . .		202
Interest on Capital Subscribed for the Calicut. Cannanore Extension £ 100,000 @ 2½ p.c.		38553
Interest on overdrawn Capital.		3348
		585505
Net Earnings of the year less contribution to Provident Institution		541265 7
Excess of interest charges over net Earnings.		44284 8

6

4c

The divisible Surplus profits of the first half of 1898 as passed by the Government Examiner amounted to Rs 161359 but during the second half of the year there was a loss to the State of Rs 620985.

After deducting from the net earnings of the year the company's moiety of Surplus profits for the first half of the year, charges for guaranteed interest, Contribution to Provident Institution and interest on overdrawn capital, the net result showed a loss to the State for the year of Rs 523528.

J. G. Meaden

Examiner, Railway Accounts,
Madras.

Madras
17th May 1899

7d

Kolar Gold Fields Railway, Standard Gauge.

The total capital outlay on final heads of accounts to 31st December 1898 was as follows.

Capital Expenditure. On lines open for traffic Rs 740183
" " Do. Suspense - - - " 69354
Total Rs 809537

Madras Railway Section of the East Coast Rly,
Standard Gauge.

The total capital outlay on final heads of account to 31st December 1898 comes as follows:—

Capital Expenditure. On lines open for traffic Rs 599150

4e

2093219.

Issues.

Construction	122.751	
Revenue	1929147	
Sales.	53861.	
Transfers and Suspense adjustments.	49487.	2155246
Net decrease in Stores balance		62027.

South Indian Railway. 7. thirty four

Capital transactions.

The Share capital of the Company remained unchanged, and at the close of 1898 was as follows:—

	£	£
(a) Share capital authorised.		
(Converted at 14 £s per £).	1000000	= 14000000
(b) Share capital Subscribed		
(Converted at 14 £s per £).	1000000	= 14000000

The total capital expended, including outlay from State capital, to the 31st. December 98 amounted to £s 74526344 as shewn below. viz: —.

		£s.
Capital Expenditure (including outlay from State capital).		
(i) on construction account	=	72186970
(ii) " Stores Suspense.		2328955
(iii) " Advances in Suspense.		10419
Total Capital Expended		74526344

The total Capital outlay on final heads of account £s 72186970 as given above to the 31st. December 1898 was distributed as follows: —.

(a)

	Rs
(a) South Indian Railway including Nellore Branch	55877319
(b) Villupuram Dharmavaram Section	16309651
	72186970

The expenditure during 1898 on final heads was a net credit of Rs 2861516

The following are the principal works on which expenditure was incurred.

Capital cost of the Section of the line between Gudur and Nellore transfered to the Bezwada Madras Railway. 2253790

Re. arrangement of the Gudur Station. 56431

Constructing 8 Composite Carriages on mail Van underframes. 34684

The following shows interest-charges for 1898 compared with net earnings: —

Interest in terms of Company's contract —

	Rs
i) on Company's Capital at 3 p.c. ~~debenture Stock~~	420000
ii) on State Capital (£425000 debenture stock) at 4½ p.c.	294231
iii) on Expenditure and cash balance at 3 p.c.	1670455
Add.	
iv) Share of Surplus profits payable to Company.	266184
v) Total.	2650870.
vi) Net earnings of year less Provident Fund contribution	3838671
vii) Excess of net earnings over interest charges —	1187801.

The excess of interest incurred by the State over the amount charged in terms of the Company's Contract results in a net loss to the State of Rs 177034 thus: —

Interest

Interest charges incurred by the State: —.

	Rs
i) on Company's Capital.	461538
ii) on Government Capital	
Debenture Stock at 4½ p.c.	294231
Indian Stock at 3 p.c.	1844445
Indian Stock at 2½ p.c.	117269
Indian outlay at 4 p.c.	1032038.
	3287983
iii) Surplus profits payable to Company.	266184
Total.	4015705
~~Net earnings of the year less~~	~~3838671~~
~~Less interest charged in terms of Contract. provident fund contribution~~	~~2650870~~
Excess of actual charges over contract charges	1364835
Excess of net earnings over interest charges.	1187801.
Net loss to the State -	177034

Mayavaram. Mutupet Railway.

Stores.

Nil

The total capital outlay on final heads of account to the 31st Dec. 1898 was: Rs. 2494905

The amount held in Suspense was. Nil

The expenditure of the final heads was 305

Interest charges compare as follows with net earnings.

	Rs
Interest on capital outlay at 4 p.c.	99843.
Net earnings. . .	77627
Excess of interest charges over net earnings.	22216

Madras
19th May 1899.

J. G. Kearon
Examiner of Railway Accounts
Madras.

Part II of the Administration Report for the Year 1898.

Chapter IV — Details of Revenue Earnings and Expenditure (For the Calendar Year Ending 31st December 1898)

Madras Railway System, Standard Gauge.

The open mileages of the several Sections were as follows

Madras Railway	839.17.65
Kolar Gold Fields Railway	10.0.0
Madras Railway	8.36.8.
	857.54.7 = 857.68.

The mean mileage worked during the year was 857.68 miles the same as it was in the previous year.

The following table shews the general results of the year's working as compared with those of the previous year.

General Results.

Year	Mean Mileage worked	Train Mileage	Gross Earnings	Working Expenses*	Net Earnings	Percentage of working expenses on Gross Earnings	Gross Earnings per mean mile worked per week	Percentage of net Earnings on total Capital outlay including Expenses
	Miles	Miles	Rs	Rs	Rs		Rs	
Previous Year	857.68	2,647,484	1,17,38,041	61,22,063	61,15,978	47.90	26219	4.92
1898	857.68	2,600,526	1,09,68,558	58,66,035	51,02,515	48.92	24594	4.57
Increase or Decrease	-	-46,958	- 7,69,491	- 2,56,028	- 10,13,463	+ 1.02	- 1725	- .44
Percentage of Increase or Decrease	-	- 1.77	- 6.56	- 4.35	- 8.40	-	- 6.58	-

* Includes contribution to the Provident Funds.

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Chapter IV.

The divisible surplus profits of the first half of 1898 at the date of the submission of the Accounts after declaring a sum of Rs 19,637 being interest due on Debentures raised for the Calicut-Cannanore Extension amounted to Rs 1,61,309 as against Rs 1,71,937 in the first half of the previous year. There were no surplus profits in the second half of 1898, the net Earnings amounting to Rs 23,45,016 having fallen short of the guaranteed interest and contribution to Provident Institution by Rs 6,02,069.

After deducting from the net Earnings of the year the Company's moiety of surplus profits, charges for guaranteed interest, Contribution to Provident Institution, Interest on Overdrawn Capital and Interest on Debentures raised for the Calicut-Cannanore Extension the net result showed a loss to the state for the year of Rs 5,40,305 as against a gain of Rs 89,585 for the previous year.

11 6

The following table shews the Gross Earnings under main heads as compared with the previous year.

Gross Earnings.

	Previous Year	1898	Decrease.
	Rs	Rs	Rs
Coaching	46.32.757	40.99.357	– 5.33.400
Goods	68.65.394	66.52.261	– 2.13.633
Electric Telegraph	20.492	17.351	– 3.141
Sundries	2.18.398	1.99.581	– 19.817
	1.17.37.041	1.09.68.550	– 7.69.491

Coaching.

The numbers 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
Previous Year	27.766	199.231	117.252	2.58.924	1.97.852	1.97.852	342.870	4.55.007
1898	25.952	186.102	96.611	2.15.527	1.82.606	1.82.606	305.169	4.04.235
Increase								
Decrease.	2.814	13.129	20.641	43.397	15.246	15.246	37.701	50.772

The decrease in 3rd Class traffic may be ascribed generally to a large falling off in the number travelling attributable to plague restrictions during the year.

The average amount received for carrying a passenger one mile amounted to 2.21 pies against 2.36 pies in the previous year.

The Coaching Earnings per Passenger train mile were 3.26 against 3.52.

Goods.

The following is a summary of the tonnage of Goods lifted and the earnings therefrom as compared with the previous year.

	Previous Year		1892		Increase or Decrease.	
	Tons	Rs	Tons	Rs	Tons	Rs
General Merchandise.	889,122	60,19,823	786,082	56,02,152	- 103,051	- 4,17,679
Military Stores	1,760	88,054	1,932	76,234	+ 172	- 11,820
Railway Materials for Construction (Stores lines only)	1,528	4,881	2,996	9,478	+ 1,478	+ 4,602
Coal and Coke for the Public and Foreign Railways	129,043	5,68,388	171,243	7,53,564	+ 42,195	+ 185,176
Coal and Coke for Construction (Stores lines only)	-	-	-	-	-	-
Coal and Coke for Revenue only.	29,916	29,892	13,345	3,026	- 16,571	- 2,766
Revenue Stores other than Coal and Coke.	197,916	92,099	195,562	120,163	- 1,554	+ 28,264
Live Stock	1,563	40,152	1,370	29,592	- 193	- 10,596
Rents Miscellaneous.	-	21,409	-	21,145	-	- 264
	1,351,848	72,45,798	1,175,530	69,25,369	- 176,318	- 3,20,429

The noticeable fluctuations of traffic under General Merchandise are noted below:-

	Tons		Amount Rs	
	Increase	Decrease	Increase	Decrease
Cotton Raw	10,131		63,362	
Oil Seeds	62,57		69,232	
Grain and Pulse		103,796		247,397
Hides and Skins		9,981		149,903

The probable causes of these commodities may be attributed as follows:-

Cotton Raw Larger despatches of Pressed Cotton from Adoni, Raichur and S. M. Railway to Madras and from Guntakal to G. I. P. Railway.

Oil Seeds. Larger despatches of Linseed from Adoni to G.I.P. Railway and from S. M. Railway to Madras; of Til or Gingelli seeds from S. M. Railway to Madras, North Arcot and Coimbatore Districts and from G. I. P. Railway to Madras; of other oils

seeds from Bangalore City to Madras, North Arcot District and S. I. Railway, from Adoni to Coimbatore District, from S. M Railway to Madras, Salem and Coimbatore Districts and from G. I. P. Railway to Madras.

Grain and Pulse. Smaller despatches of wheat from Madras to Katpadi and Mettupalaiyam and from G. I. P. Railway to Madras and Bangalore City; of Rice not in the husk from Arcot to Coaliut, from Katpadi to Malabar District and Bangalore Branch, from S. M Railway to Madras and Bellary District and from S. I. Railway to Malabar and Coimbatore Districts and Bangalore Branch; of Jowar and Bajra (Cholum and Cumboo) from Salem to Malabar and Bellary Districts and G. I. P. Railway, from Erode and Tiruppur to Malabar District and G. I. P and S. M Railways and from S. M Railway to Salem and Bellary Districts; of other Grains and Pulse from Salem District to Madras and Bangalore Branch and G. I. P and S M Railways; and from Coimbatore District to Bangalore Branch and G. I. P. and S. M. Railways.

Hides and Skins. Smaller despatches of Cattle Hides (Dressed or Tanned) from Arcot and Narinjambadi to Madras and from Coimbatore to Madras and Malabar District; of cattle Hides (Raw) from Madras to North Arcot District and from G. I. P and S. M Railways to Madras and Salem District; of sheep skins (Dressed or Tanned) from North Arcot District to Madras and from G. I. P and S. M Railways to Madras; of sheep skins (Raw) from Madras to North Arcot and Salem Districts and from G. I. P. and S. M Railways to Madras.

The average sum received for carrying a ton of goods one mile amounted to 2.35 pies against 2.36 pies in the previous year.

The Goods Earnings per Goods train mile were Rs 4.95 against Rs 5.07.

The following table shows the Working Expenses of the Railway System during 1898 as compared with the previous year:

Working Expenses

	1897		1898		Increase or decrease	Increase or decrease in the percentage of Expenses on Earnings
	Amount	Per cent on Gross Earnings	Amount	Per Cent on Gross Earnings		
	Rs.		Rs.		Rs.	
Maint. of Way, Works & Station	1,290,151	10.99	1,278,668	11.66	- 11,483	+ .67
Locomotive Expenses	2,170,119	18.49	2,063,323	18.81	- 106,796	+ .32
Carriage & Wagon Expenses	615,806	5.26	476,721	4.35	- 139,085	- .90
Traffic Expenses	845,557	7.21	871,137	7.94	+ 25,580	+ .73
General Charges	430,836	3.95	423,964	3.86	- 6,872	+ .27
Special & Miscellaneous Expenditure	119,499	1.01	103,122	.94	- 16,377	- .07
Total	5,622,018	47.90	5,166,035	48.78	- 255,033	+ 1.02

The decrease under Maintenance of Way Works and Station was chiefly due to the absence of special outlay on Repairs of Bridges and on Repairs of Stations and Buildings.

The decrease under Loco Expenses is owing to no new Engines having been erected in 1898 whereas the cost of 4 engines was charged off in the previous year.

The decrease under Carriage and Wagon Expenses is mostly due to a smaller number of Vehicles having been repaired as well as to more economical working of the department.

The increase under Traffic Expenses is due to additional Guards and Assistant Guards as well as to Mileage allowances paid to Guards and Assistant Guards during the whole of the year 1898 as against only about 9 months July 1897 in the previous year also to a larger outlay on Wagon Covers.

The decrease under General Miscellaneous Expenditure is due to Commission and stamp duty on Debentures having been charged off in 1897.

Revenue Transactions.

South Indian Railway System (metre gauge).

Mileage.

The open mileages of the several sections were as follows:-

	Miles
South Indian Railway	1017.88
Mayavaram Mutupet Ry	53.99
Pondicherry Railway	7.80
Peralam Karaikkal Ry	14.45
	1094.12

The mean mileage worked during the year 1898 was 1111.02 against 1103.38 miles in the previous year, the increase of 7.64 miles being due to the opening of the Peralam Karaikkal Railway, 14.45 miles, on the 14th March 1898 and to the section from Gudur to Nellore, 23.71 miles, being transferred to the Bezwada Madras Railway on 1st November 1898.

General Results.

The following table compares the general results of the years working with those of the previous year:-

	Mean mileage worked	Train mileage	Gross Earnings	Working expenses	Net Earnings	Percentage of working expenses on gross earnings	Gross earn. per mean mile work. per week	Percentage of net earnings on capital outlay (including ass. funds)
	Miles	Miles	Rs	Rs	Rs		Rs	
Previous year 1898	1103.38	3640.615	94.84.083	50.40.699	44.43.384	53.15	165	5.57
	1111.02	3489289	87.65.343	48.13.118	39.52.225	54.91	152	5.05
Increase or decrease	7.64	151327	7.18.740	2.27.581	4.91.159	1.76	13	
Percentage of increase or decrease.	.69	4.16	7.58	4.51	11.05		7.88	

Surplus Profits.

The divisible surplus profits for the first half of 1898 of the South Indian Railway proper amounted to Rs 808022 and those of the second half to Rs 630166 making up a total of Rs 1438188 as against Rs 1853202 in the previous year, a decrease of Rs 415014.

The net earnings for the year 1898 of the South Indian Railway proper were Rs 3852349 and deducting therefrom the Company's share of surplus profits charges for guaranteed interest additional contribution to the Provident Fund (the ordinary contribution to the Fund being a debit to working expenses) and other incidental adjustments the result was a gain to the State for the year of Rs 1172981 as against Rs 1515410 in the previous year, a decrease of Rs 342429.

Gross Earnings.

The following table shows the gross earnings under main heads, as compared with the previous year :—

	1897	1898	Increase or Decrease
	Rs	Rs	Rs
Coaching	5177193	4598337	578856
Goods	4003827	3899935	103892
Electric Telegraph	22472	22318	154
Sundries	280594	244753	35841
Total	9484083	8765343	718740

Coaching.

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	
	Number	Earnings	Number	Earnings	Number	Earnings	Number	Earnings
		Rs		Rs		Rs		Rs
1897	22542½	72920	192099	180532	13975846½	4672829	14190488	4926281
1898	23891	82652	118503	159636	12755013½	4093932	12897467½	4336220
Increase or Decrease	1348½	9732	73536	20896	1220833	578897	1293020½	590061

The above table shows a net decrease of 1293021 in the number of passengers carried and Rs 590061 in receipts.

The decrease is ascribed to

(1) The restrictions imposed on account of the Plague.

(2) The unfavourable season which resulted in poor attendance at important local festivals

(3) The Mahamagam festival which occurs but once in twelve years was held at Kumbaconam in 1897.

The average sum received for carrying a passenger one mile amounted to 2·08 pies against 2·05 pies in the previous year.

The coaching earnings per passenger train mile were Rs 2·3¼ against Rs 2·56

Goods. 4 Lakhs, ing is a sum

with the previous year:—

	1897		1898		Increase or decrease	
	Tons	Rs	Tons	Rs	Tons	Rs
General Merchandize	953.735	3816507	860.979	3696256	92.756	120251
Military Stores	110	2635	320	3.024	210	389
Railway materials for construction (Home line only)	27613	10.862	119218	16.136	91.605	5274
Coal and coke for the public and foreign railways	11.733	17.986	13.255	17644	1522	342
Coal and coke for revenue only	32590	39532	29.085	33.056	3.505	6476
Revenue stores other than coal and coke	436.721	89522	679542	102.941	242.821	13419
Live stock	409	6753	860	8291	451	1538
Rents, miscellaneous &c.		20107		22587		2480
Total	1462911	4003904	1703259	3899935	240.348	103969
Do. outstandings irrecoverable		77				77
Total	1462911	4003827	1703259	3899935	240.348	103892

The noticeable fluctuations in the traffic under "General Merchandize" are given below:—

	Increase		Decrease	
	Tons	Rs	Tons	Rs
Cotton raw	1.293	8.193		
Cotton, manufactured			1.099	18.795
Grain and Pulse			74049	124825
Timber	2.229			9359
Oils		8.233	127	
Provisions			1.539	17839
Railway Plant and Rolling Stock			24.951	63249
Salt			5.914	25.021
Spices			1.553	11.874
Sugar	[illegible]7	50.774		
Other articles				

Cotton raw - The increase was in loose cotton from Tirunelveli to Tuticorin for use in the local mills.

Cotton manufactured - The decrease principally occurred in "Piece-goods (European)" from Madras to the Tanjore and southern districts where the demand was less than in the previous year.

Grain and Pulse. Owing to bad crops in the South Arcot, North Arcot, Tanjore, Trichinopoly, Madura, and Tinnevelly districts, due to untimely rains, the export of "Rice not in the husk" was less than in 1897. The famine in the northern India having subsided there was less quantity of "Jowar and Bajra" exported. There was some improvement however in the export of "Rice in the husk" from the Tanjore and Trichinopoly Districts which helped to reduce the decrease to some extent

Timber. The decrease in amount was in "Wooden Sleepers" for the Peralam Karaikkal Railway since completed, and in "Firewood" for different mills, coal being used instead.

21

16

Oils. The increase was chiefly under "Kerosine oil in bulk".

Provisions. The decrease was under the head "Others" chiefly in consignments from the Cuddalore and North Arcot districts to the Tanjore and southern districts the crop being below the average.

Railway Plant and Rolling Stock.

In 1897 there was exceptional traffic in rails, girders and sleepers carried from Koyapuram and Ennur to Gudur, Venkatachalam and Akkiore for the Madras Bezwada Ry.

Salt. Owing to the low cart rates, stations near Tuticorin and others along a portion of the East Coast were served by country carts. The stations on the Madras and Southern Mahratta Railways obtained supplies from the West coast instead of from Akkiore.

Spices. The decrease was chiefly in "Betel-nuts" from Tuticorin to Madura and the South Arcot district and from Negapatam to stations on foreign Railways on account of smaller imports from Penang, Singapore and Colombo.

Sugar. The increase was under "Sugar unrefined" from Tinnevelly to Arcot for the Arcot Sugar factories. The production of jaggery in the Tinnevelly district was considerably over the average.

All other articles of merchandize.

The increase was under Cocoanuts, cotton-seeds, fibre, plantains and oil cakes. The crop of cocoanuts in the Tanjore and Trichinopoly districts this year was considerably over the average.

The average sum received for carrying a ton of goods one mile amounted to 6·8.66 pies against 8.49 pies in the previous year. The Goods earnings per goods train mile were Rs 2.52 against Rs 2.47.

Working Expenses. The following table shows the working expenses of the Railway during 1898 as compared with the previous year:-

	1897		1898		Increase or decrease in amount	Increase or decrease in the percentage of expenditure on earnings.
	Amount	Percentage on gross earnings	Amount	Percentage on gross earnings		
	Rs		Rs		Rs	
Maintenance of Way, Works & Stations	11.66.115	12·29	9.25.931	10.56	2.40.184	1.73
Locomotive Expenses	17.72.538	18.69	17.63.434	20.12	9.104	1.43
Carriage and Wagon Expenses	5.20.568	5.49	5.27.529	6.02	6.961	0.53
Traffic Expenses	8.50.306	8.97	8.27.104	9.44	23.202	0.47
General Charges	6.40.475	6.75	6.39.223	7.29	1.252	0.54
Special and Miscellaneous Expenditure	90.697	.96	1.29.897	1.48	39.200	0.52
Total	50.40.699	53·15	48.13.118	54·91	2.27.581	1.76

Maintenance of Way, Works and Stations -

1·32 miles were renewed with 50 lbs rails against 12·85 miles in the previous year. The outlay on repairs to stations and buildings, on renewals with cast iron cushions and additional tie bars was considerably less than in 1897. Under "Unclassified expenditure" special debits were included in 1897 on account of the depreciation in value of stores sold.

Locomotive Expenses.

There was a large decrease under "Fuel" and "Unclassified expenditure" due to less train mileage run and to the carriage of less coal. There was an arrear credit adjustment of £8103 on account of loss on stores. The decrease was partially nullified by increased outlay under "Renewals of Locomotive Engines" due to the supply of steel tyres for engine wheels and to fitting new cranks, coupling rods and driving axles to "F" class engines and new axles, cranks and eccentric sheaves to "O" class engines.

Carriage and Wagon Expenses.

The increase was mainly due to the replacement of old axles by those of larger and stronger type.

Traffic Expenses.

The transfer of the Gudur section to the Bezwada-Madras Railway on the 1st November 1898 and the reduction of the passenger train service between Pakala and Dharmavaram from 4th April 1899 owing to slackness of traffic on account of Plague restrictions account chiefly for the decrease under this Head.

General Charges.

The decrease is small and calls for no special remark.

Special and Miscellaneous Expenditure.

The increase is wholly due to the temporary debit to working expenses of the expenditure incurred on account of the Erode Karjangod and Madura Pamban Railway Surveys.

Offg: Chief Auditor

Narrative Memorandum of Part II of the Administration Report on Railways in India for 1898-99.

MADRAS PRESIDENCY.

Chapter I.—Stores.

(For the official year ending 31st March 1899.)

Madras Railway, Standard Gauge.

General.

The cost of working the Stores Department during the year ended the 31st December 1898 was Rs. 23,514 as compared with Rs. 23,100 in 1897. On this Railway charges for landing and despatching stores are not charged to the Stores Department, but are added to the cost of the articles received.

There was no alteration in the control of stores and stores depôt.

The purchases of stores in India during 1898 aggregated Rs. 17,75,626, of which Rs. 1,14,748 were on account of English and Rs. 16,60,878 for country stores. The purchases in 1897 aggregated Rs. 18,26,617.

The following amounts were realized by the sale of surplus and condemned stores and cinders during 1898, viz. :—

—	New.	Old.	Total.	Remarks.
	Rs.	Rs.	Rs.	
Surplus and condemned stores	4,220	65,439	69,659	* This sum was credited to Revenue.
Cinders	..	1,801*	1,801	

as compared with Rs. 94,456 for surplus and condemned stores and Rs. 6,950 for cinders realized in 1897.

Consumption of oil.

The following statement shows the consumption of oils purchased, &c., during 1898 as compared with the previous year :—

Description.	1897.			1898.		
	Total quantity purchased.	Total quantity of purchased oil consumed.	Rate per cwt. during 1897.	Total quantity purchased.	Total quantity of purchased oil consumed.	Rate per cwt. during 1898.
	cwt.	cwt.	Rs. A. P.	cwt.	cwt.	Rs. A. P.
Castor oil	3,418	3,419	16 5 8	3,747	3,723	16 7 5
Linseed oil	139	335	22 4 8	328	267	17 5 6
Mineral oil	..	..	 9	..	..	 2
Kerosine oil	5,845	6,008	8 3 9	6,826	6,721	7 14 2

South Indian Railway, Metre Gauge.

General.

The cost of working the Stores Department during the year ended the 31st December 1898 was Rs. 48,883 as compared with Rs. 51,952 in 1897. The former amount includes Rs. 6,861 on account of the cost of landing and despatching imported stores at the port of Madras as compared with Rs. 15,057 on this account in 1897.

There was no alteration in the control of stores and store depôts.

The purchases of stores in India during 1898 aggregated Rs. 14,39,802, of which Rs. 90,732 were on account of English and Rs. 13,49,070 for country stores. The purchases in 1897 aggregated Rs. 12,64,840.

The following amounts were realized by the sale of surplus and condemned stores and cinders during 1898, viz.:—

—	New.	Old.	Total.
	Rs.	Rs.	Rs.
Surplus and condemned stores	13,405	2,109	15,514
Coke and cinders	8,018	2,815	10,833

as compared with Rs. 80,102 for surplus and condemned stores and Rs. 12,853 for coke and cinders realized in 1897.

Consumption of oil.

The following statement shows the consumption of oils purchased, &c., during 1898 as compared with the previous year:—

Description.	1897.			1898.		
	Total quantity purchased.	Total quantity of purchased oil consumed.	Rate per cwt. during 1897.	Total quantity purchased.	Total quantity of purchased oil consumed.	Rate per cwt. during 1898.
	cwt.	cwt.	Rs. A. P.	cwt.	cwt.	Rs. A. P.
Castor oil	3,025	2,755	18 5 8	2,530	2,598	18 8 9
Cocoanut oil	4,902	4,902	18 13 5	4,701	4,671	17 13 5
Kerosine oil	2,166	2,166	8 4 3	2,230	2,185	6 10 2
Lubricating oil	1,112	1,112	9 0 5	1,809	1,604	9 10 6
Linseed oil	588	402	25 15 5	492½	375½	24 13 7

Chapter II.—Capital.

(For the Calendar year ending 31st December 1898.)

Madras Railway and Extensions, Standard Gauge.

The total Capital of the Company at the close of 1898 was as follows:—

Madras Railway.

	£	£	Rs.
Capital authorized—			
Stock	10,257,630		
Loans	3,319,210		
Capital not bearing interest ...	7,258		
Total Capital authorized ...		13,584,098	14,81,90,162
Capital subscribed—			
Stock	10,257,630		
Capital not bearing interest ...	7,258		
Debentures @ 3¼ per cent. ...	100,000		
,, @ 3 ,, ...	332,700		
,, @ 2¾ ,, ...	60,000		
,, @ 2½ ,, ...	405,300		
Total Capital subscribed ...		11,162,888	12,17,76,962
Capital Expenditure—			
Line open for traffic		9,523,817	10,38,96,187
Working stock		1,436,095	1,56,66,488
Stores, etc.		214,344	23,38,295
Capital advance Account in suspense		216	2,352
Total Capital Expenditure ...		11,174,040	12,18,98,618
Balance available—			
Of Capital authorized		2,410,058	...
,, subscribed		11,152	...

Madras Railway Extensions (under construction).

	£	£	Rs.
Capital authorized—			
Loans	100,000	...	...
Less discount	1,000		
		99,000	15,93,989
Capital subscribed—			
Debentures @ 2½ per cent.	100,000	...	...
Less discount	1,000		
		99,000	15,93,989
Capital Expenditure—			
Line in course of construction—			
Calicut-Cannanore extension		8,812	1,37,549
Arcot-Ranipet branch		13,202	2,01,485
		22,014	3,39,034
Capital advance Account in suspense		6,203	93,862
Total Capital Expenditure ...		28,217	4,32,896
Balance available—			
Of Capital authorised		70,783	...
„ subscribed		70,783	...

The expenditure of the year on final heads was—

	Rs.
Madras Railway	3,98,229
Calicut-Cannanore extension	86,922
Arcot-Ranipet branch	2,01,485

and the principal works on the main line upon which expenditure was incurred were—

	Rs.
Fitting automatic vacuum brake gear for 6 engines and 200 carriages	37,863
Alterations and additions to Bangalore City station	87,623
Construction of Bogie composites, 3rd-class carriages and brake vans	18,905
Construction of 5 composites and 5 3rd-class carriages	12,764

The following table shows interest charges for 1898 compared with net earnings :—

Interest—On subscribed capital	@ 5	per cent.	Rs.	47,76,911
Do.	do.	@ 4¾ „	„	5,18,161
Do.	do.	@ 4½ „	„	2,45,455
Do.	do.	@ 3¼ „	„	35,455
Do.	do.	@ 3 „	„	1,08,884
Do.	do.	@ 2¾ „	„	18,000
Do.	do.	@ 2½ „	„	1,10,536
			„	58,13,402
Add—Difference of exchange for interest on cost of Arcot-Ranipet branch			„	202
Interest on Capital subscribed for the Calicut-Cannanore extension £100,000 @ 2½ per cent.			„	38,553
Interest on overdrawn capital			„	3,348
			„	58,55,505
Net earnings of the year *less* contribution to Provident Institution			„	54,12,657
Excess of interest charges over net earnings			„	4,42,848

The divisible surplus profits of the first-half of 1898, as passed by the Government Examiner, amounted to Rs. 1,61,359; half this sum, however, does not represent the true gain to Government for the period as the divisible surplus is arrived at after adding outstandings, &c., pertaining to a previous half year and deducting outstanding earnings of the current half year. During the second-half of the year there was a loss to the State as brought out in the Capital and Revenue accounts of Rs. 6,20,985, but to this should be added a sum of Rs. 2,955 which represents interest.

After deducting from the net earnings of the year the Company's moiety of surplus profits for the first half of the year, charges for guaranteed interest, contribution to Provident Institution and interest on overdrawn capital, the net result showed a loss to the State for the year of Rs. 5,23,528.

Kolar Gold Fields Railway, Standard Gauge.

The total capital outlay on final heads of account to 31st December 1898 was as follows :—

Capital Expenditure—On line open for traffic	Rs.	7,40,183	4
In suspense	„	69,354	
Total	„	8,09,537	8

Madras-Ennur Section of the East Coast Railway, Standard Gauge.

The total capital outlay on final heads of account to 31st December 1898 was as follows :—

Capital Expenditure—On line open for traffic	Rs.	5,99,150

South Indian Railway, Metre Gauge.

The share capital of the Company remained unchanged and at the close of 1898 was as follows :—

	£	Rs.
(*a*) Share capital authorised (converted at Rs. 14 per £) ...	1,000,000	= 1,40,00,000
(*b*) Share capital subscribed (converted at Rs. 14 per £) ...	1,000,000	= 1,40,00,000

The total capital expended, including outlay from State capital, to the 31st December 1898 amounted to Rs. 7,45,26,344 as shown below, viz. :—

Capital expenditure (including outlay from State capital)—

(i) On construction account	Rs.	7,21,86,970
(ii) On Stores suspense	„	23,28,955
(iii) On Advances in suspense	„	10,419
Total Capital expended ...	„	7,45,26,344

The total capital outlay on final heads of account Rs. 7,21,86,970 as given above to the 31st December 1898 was distributed as follows :—

(*a*) South Indian Railway including Nellore branch ...	Rs.	5,58,77,319
(*b*) Villupuram-Dharmavaram section	„	1,63,09,651
Total ..	„	7,21,86,970

The expenditure during 1898 on final heads was a net credit of Rs. 20,61,516. The following are the principal works on which expenditure was incurred :—

Capital cost of the section of the line between Gudur and Nellore transferred to the Bezwada-Madras Railway	Rs.	**22,53,790**
Re-arrangement of the Gudur station	„	56,431
Constructing 8 composite carriages on mail van underframes ...	„	34,684

The following shows interest charges for 1898 compared with net earnings :—

Interest in terms of Company's contract—		
(i) On Company's capital at 3 per cent.	Rs.	4,20,000
(ii) On State capital (£425,000 debenture stock) at 4½ per cent.	„	2,94,231
(iii) On expenditure and cash balance at 3 per cent.	„	16,70,455
Add—(iv) Share of surplus profits payable to Company	„	2,66,184
(v) Total	„	26,50,870
(vi) Net earnings of year *less* Provident Fund contribution ..	„	38,38,671
(vii) Excess of net earnings over interest charges	„	11,87,801

The excess of interest incurred by the State over the amount charged in terms of the Company's contract results in a net loss to the State of Rs. 1,77,034 thus—

Interest charges incurred by the State—			
(i) On Company's capital		Rs.	4,61,538
(ii) On Government capital—			
Debenture stock at 4½ per cent. ...	Rs. 2,94,231		
Indian stock at 3 per cent. ...	„ 18,44,445		
Indian stock at 2½ per cent. ...	„ 1,17,269		
Indian outlay at 4 per cent. ...	„ 10,32,038		
		„	32,87,983
(iii) Surplus profit payable to Company		„	2,66,184
Total ...		„	40,15,705
(iv) Less interest charged in terms of contract		„	26,50,870
Excess of actual charges over contract charges		„	13,64,835
Excess of net earnings over interest charges		„	11,87,801
Net loss to the State ...		„	1,77,034

Mayavaram-Mutupet Railway, Metre Gauge.

The total capital outlay on final heads of account to the 31st December 1898 was Rs. 24,94,905
The amount held in suspense was ... ... „ *Nil.*
The expenditure of the year on final heads was ... ... „ 3,051

Interest charges compare as follows with net earnings:—

Interest on capital outlay at 4 per cent.	Rs.	99,843
Net earnings	„	77,627
Excess of interest charges over net earnings ...	„	22,216

Chapter IV.—Details of Revenue Earnings and Expenditure.

(For the calendar year ending 31st December 1898.)

Madras Railway System, Standard Gauge.

The open mileages of the several sections were as follows:—

	MLS.	CHS.	FT.
Madras Railway	839	17	65
Kolar Gold Fields Railway	10	0	0
Madras-Ennur Railway	8	36	8
	857	54	7 = 857·68 miles.

The mean mileage worked during the year was 857·68 miles, the same as it was in the previous year.

The following table shows the general results of the year's working as compared with those of the previous year:—

General Results.

Year.	Mean mileage worked. MILES.	Train mileage. MILES.	Gross earnings. RS.	Working expenses.* RS.	Net earnings. RS.	Percentage of working expenses on gross earnings.	Gross earnings per mean mile worked per week. RS.	Percentage of net earnings on total capital outlay including suspense.
Previous year ..	857·68	2,647,436	1,17,38,041	56,22,068	61,15,973	47·90	263·19	4·98
1898	857·68	2,600,546	1,09,68,550	53,66,035	56,02,515	48·92	245·94	4·54
Increase or decrease ..	..	— 46,890	— 7,69,491	— 2,56,033	— 5,13,458	+ 1·02	— 17·25	— ·44
Percentage of increase or decrease ..	..	— 1·77	— 6·56	— 4·55	— 8·40	..	— 6·55	..

* Includes contribution to the Provident Fund.

Surplus profits.

The divisible surplus profits of the first half of 1898 at the date of the submission of the accounts after deducting a sum of Rs. 19,637 being interest due on debentures raised for the Calicut-Cannanore extension amounted to Rs. 1,61,359 as against Rs. 1,71,937 in the first half of the previous year. There were no surplus profits in the second-half of 1898, the net earnings amounting to Rs. 23,45,016 having fallen short of the guaranteed interest and contribution to Provident Institution by Rs. 6,02,069.

After deducting from the net earnings of the year the Company's moiety of surplus profits, charges for guaranteed interest, contribution to Provident Institution, interest on overdrawn capital and interest on debentures raised for the Calicut-Cannanore extension, the net result showed a loss to the State for the year of Rupees 5,23,528 as against a gain of Rs. 89,585 for the previous year.

Gross Earnings.

The following table shows the gross earnings under main heads as compared with the previous year :—

Class of ernings.	Previous year. Rs.	1898. Rs.	Decrease. Rs.
Coaching	46,32,757	40,99,357	— 5,33,400
Goods	68,65,894	66,52,261	— 2,13,633
Electric telegraph	20,492	17,351	— 3,141
Sundries	2,18,898	1,99,581	— 19,317
Total ..	1,17,38,041	1,09,68,550	— 7,69,491

Coaching.—The number of passengers of the various classes carried including Troops and Police and season tickets and the earnings therefrom compare as follows :—

Year.	First class.		Second class.		Third class.		Total.	
	No.	Earnings. Rs.	No.	Earnings. Rs.	No.	Earnings. Rs.	No.	Earnings. Rs.
Previous year ..	27,766	1,99,336	117,232½	2,53,926	10,929,002½	35,48,667	11,074,001	40,01,929
1898	25,058½	2,01,378	112,723	2,56,743	9,121,191	30,33,276	9,258,972½	34,91,397
Increase	..	2,042	..	2,817	..	..	..	..
Decrease	2,707½	..	4,509½	..	1,807,811½	5,15,391	1,815,028½	5,10,532

The decrease in third-class traffic may be ascribed generally to a large falling off in the number travelling attributable to plague restrictions during the year.

The average sum received for carrying a passenger one mile amounted to 2·31 pies against 2·26 pies in the previous year.

The coaching earnings per passenger train mile were 3·26 against 3·58.

Goods.—The following is a summary of the tonnage of goods lifted and the earnings therefrom as compared with the previous year :—

Class of earnings.	Previous year.		1898.		Increase or decrease.	
	TONS.	Rs.	TONS.	Rs.	TONS.	Rs.
General merchandise	888,133	60,19,633	786,082	56,02,154	— 102,051	— 4,17,479
Military stores	1,768	80,054	1,932	75,834	+ 164	— 4,220
Railway materials for construction (home line only)	1,523	4,831	2,996	9,473	+ 1,473	+ 4,642
Coal and coke for the public and foreign railways	128,048	5,68,838	170,543	7,58,564	+ 42,495	+ 1,89,726
Coal and coke for construction (home line only)	..	..	..	..	..	..
Coal and coke for revenue only ..	32,216	38,802	15,345	35,036	— 16,871	— 3,766
Revenue stores other than coal and coke	197,096	92,099	195,562	1,20,463	— 1,534	+ 28,364
Live stock	1,563	40,188	1,370	29,592	— 193	— 10,596
Rents miscellaneous	..	21,449	..	21,145	..	— 304
Total ..	1,250,347	68,65,894	1,173,830	66,52,261	— 76,517	— 2,13,633

The noticeable fluctuations of traffic under General Merchandise are noted below:—

Class of goods.	Tons.		Amount, Rs.	
	Increase.	Decrease.	Increase.	Decrease.
Cotton, raw	6,181	..	58,853	..
Oil-seeds	6,251	..	69,238	..
Grain and pulse	..	68,796	..	2,47,397
Hides and skins	..	9,981	..	1,49,908

The probable causes of these commodities may be attributed as follows:—

Cotton, Raw.—Larger despatches of pressed cotton from Adoni, Raichur and Southern Mahratta Railway to Madras and from Guntakal to Great Indian Peninsula Railway.

Oil-seeds.—Larger despatches of linseed from Adoni to Great Indian Peninsula Railway and from Southern Mahratta Railway to Madras; of til or gingelly seeds from Southern Mahratta Railway to Madras, North Arcot and Coimbatore districts and from Great Indian Peninsula Railway to Madras; of other oil-seeds from Bangalore City to Madras, North Arcot district and South Indian Railway, from Adoni to Coimbatore district, from Southern Mahratta Railway to Madras, Salem and Coimbatore districts, and from Great Indian Peninsula Railway to Madras.

Grain and Pulse.—Smaller despatches of wheat from Madras to Katpadi and Mettupalaiyam and from Great Indian Peninsula Railway to Madras and Bangalore City; of rice not in the husk from Arcot to Calicut, from Katpadi to Malabar district and Bangalore branch, from Southern Mahratta Railway to Madras and Bellary district, and from South Indian Railway to Malabar and Coimbatore districts and Bangalore branch; of jawar and bajra (cholum and cumbu) from Salem to Malabar and Bellary districts and Great Indian Peninsula Railway, from Erode and Tiruppur to Malabar district and Great Indian Peninsula and Southern Mahratta Railways, and from Southern Mahratta Railway to Salem and Bellary districts; of other grains and pulse from Salem district to Madras and Bangalore branch and Great Indian Peninsula and Southern Mahratta Railways, and from Coimbatore district to Bangalore branch and Great Indian Peninsula and Southern Mahratta Railways.

Hides and Skins.—Smaller despatches of cattle hides (dressed or tanned) from Arcot and Vaniyambadi to Madras and from Coimbatore to Madras and Malabar district; of cattle hides (raw) from Madras to North Arcot district and from Great Indian Peninsula and Southern Mahratta Railways to Madras and Salem district; of sheep skins (dressed or tanned) from North Arcot district to Madras and from Great Indian Peninsula and Southern Mahratta Railways to Madras; of sheep skins (raw) from Madras to North Arcot and Salem districts and from Great Indian Peninsula and Southern Mahratta Railways to Madras.

The average sum received for carrying a ton of goods one mile amounted to 8·35 pies against 8·36 pies in the previous year.

The goods earnings per goods train mile were Rs. 4·95 against Rs. 5·07.

Working Expenses.

The following table shows the working expenses of the railway system during 1898 as compared with the previous year:—

Head of account.	1897.		1898.		Increase or decrease in amount.	Increase or decrease in the percentage of expenses on earnings.
	Amount. Rs.	Per cent. on gross earnings.	Amount. Rs.	Per cent. on gross earnings.	Rs.	
Maintenance of way, works and stations.	12,90,151	10·99	12,78,668	11·66	— 11,483	+ ·67
Locomotive expenses	21,70,119	18·49	20,63,323	18·81	— 1,06,796	+ ·32
Carriage and wagon expenses	6,15,805	5·25	4,76,721	4·35	— 1,39,085	— ·90
Traffic expenses	8,45,557	7·21	8,71,137	7·94	+ 25,580	+ ·73
General charges	5,80,836	4·95	5 72,964	5·22	— 7,872	+ ·27
Special and miscellaneous expenditure ..	1,19,599	1·01	1,03,222	·94	— 16,377	— ·07
Total ..	56,22,068	47·90	53,66,035	48·92	— 2,56,033	+ 1·02

The decrease under Maintenance of Way, Works and Stations was chiefly due to the absence of special outlay on repairs of bridges and on repairs of stations and buildings.

The decrease under Locomotive Expenses is owing to no new engines having been erected in 1898, whereas the cost of four engines was charged off in the previous year.

The decrease under Carriage and Wagon Expenses is mostly due to a smaller number of vehicles having been repaired as well as to more economical working of the department.

The increase under Traffic Expenses is due to a retiring gratuity paid to Mr. G. R. Byron as well as to mileage allowances paid to guards and assistant guards during the whole of the year 1898, as against only six months from July 1897 in the previous year, also to a larger outlay on wagon covers.

The decrease under Special and Miscellaneous Expenditure is due to commission and stamp duty on debentures having been charged off in 1897.

South Indian Railway System, Metre Gauge.

The open mileages of the several sections were as follows:—

South Indian Railway	1,017·88	miles.
Mayavaram-Mutupet Railway	53·99	,,
Pondicherry-Railway	7·80	,,
Peralam-Karaikkal Railway	14·45	,,
	1,094·12	,,

The mean mileage worked during the year 1898 was 1,111·02 against 1,103·38 miles in the previous year, the increase of 7·64 miles being due to the opening of the Peralam-Karaikkal Railway, 14·45 miles, on the 14th March 1898 and to the section from Gudur to Nellore, 23·71 miles, being transferred to the Bezwada-Madras Railway on 1st November 1898.

General Results.

The following table compares the general results of the year's working with those of the previous year:—

	Mean mileage worked. Miles.	Train mileage. Miles.	Gross earnings. Rs.	Working expenses. Rs.	Net earnings. Rs.	Percentage of working expenses on gross earnings.	Gross earnings per mean mile worked per week. Rs.	Percentage of net earnings on capital outlay including suspense.
Previous year.	1,103·38	3,640,615	94,84,083	50,40,699	44,43,384	53·15	165	5·57
1898 ..	1,111·02	3,489,288	87,65,343	48,13,118	39,52,225	54·91	152	5·05
Increase or decrease ..	7·64	151,327	7,18,740	2,27,581	4,91,159	1·76	13	·52
Percentage of increase or decrease.	·69	4·16	7·58	4·51	11·05	..	7·88	..

Surplus Profits.

The divisible surplus profits for the first half of 1898 of the South Indian Railway proper amounted to Rs. 8,08,022 and those of the second half to Rs. 6,30,166, making up a total of Rs. 14,38,188 as against Rs. 18,53,202 in the previous year— a decrease of Rs. 4,15,014.

The net earnings for the year 1898 of the South Indian Railway proper were Rs. 38,52,349, and deducting therefrom the Company's share of surplus profits, charges for guaranteed interest, additional contribution to the Provident Fund (the ordinary contribution to the fund being a debit to working expenses) and other incidental adjustments, the result was a gain to the State for the year of Rs. 11,72,981 as against Rs. 15,15,410 in the previous year— a decrease of Rs. 3,42,429.

The following table shows the gross earnings under main heads as compared with the previous year:—

Gross Earnings.

Class of earnings.	1897. Rs.	1898. Rs.	Increase or decrease. Rs.
Coaching	51,77,193	45,98,337	5,78,856
Goods	40,03,827	38,99,935	1,03,892
Electric Telegraph	22,472	22,318	154
Sundries	2,80,591	2,44,753	35,838
Total ..	94,84,083	87,65,343	7,18,740

Coaching.—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.	
	Number.	Earnings. Rs.	Number.	Earnings. Rs.	Number.	Earnings. Rs.	Number.	Earnings. Rs.
1897	22,542½	72,920	192,099	1,80,532	13,975,846½	46,72,829	14,190,488	49,26,281
1898	23,891	82,652	118,563	1,59,636	12,755,013½	40,93,932	12,897,467½	43,36,220
Increase or decrease ..	1,348½	9,732	73,536	20,893	1,220,833	5,78,897	1,293,020½	5,90,061

The above table shows a net decrease of 1,293,021 in the number of passengers carried and Rs. 5,90,061 in receipts.

The decrease is ascribed to—

(1) The restrictions imposed on account of the plague.
(2) The unfavourable season which resulted in poor attendance at important local festivals.
(3) The Mahamagam festival which occurs but once in twelve years was held at Kumbakonam in 1897.

The average sum received for carrying a passenger one mile amounted to 2·08 pies against 2·06 pies in the previous year.

The coaching earnings per passenger train mile were Rs. 2·37 against Rs. 2·56.

Goods.—The following is a summary of the tonnage of goods lifted and the earnings therefrom as compared with the previous year:—

Class of earnings.	1897.		1898.		Increase or decrease.	
	TONS.	RS.	TONS.	RS.	TONS.	RS.
General merchandise	953,735	38,16,507	860,979	36,96,256	92,756	1,20,251
Military stores	110	2,635	320	3,024	210	389
Railway materials for construction (Home line only)	27,613	10,862	119,218	16,136	91,605	5,274
Coal and coke for the public and foreign railways	11,733	17,986	13,255	17,644	1,522	342
Coal and coke for revenue only ..	32,590	39,532	29,085	33,056	3,505	6,476
Revenue stores other than coal and coke	436,721	89,522	679,542	1,02,941	243,821	13,419
Live stock	409	6,753	860	8,291	451	1,538
Rents, miscellaneous, &c.	..	20,107	..	22,587	..	2,480
Total ..	1,462,911	49,03,904	1,703,259	38,99,935	240,348	1,03,969
Less—Outstandings irrecoverable ..	..	77	..	..	..	77
Total ..	1,462,911	40,03,827	1,703,259	38,99,935	240,348	1,03,892

The noticeable fluctuations in the traffic under "General Merchandise" are given below:—

Class of goods.	Increase.		Decrease.	
	TONS.	RS.	TONS.	RS.
Cotton, raw	1,293	8,193	..	..
Cotton, manufactured	..	..	1,009	18,795
Grain and pulse	..	..	74,049	1,24,825
Timber	2,229	..	..	9,359
Oils	..	8,233	127	..
Provisions	..	..	1,539	17,839
Railway plant and rolling-stock	..	..	24,951	63,249
Salt	..	..	5,914	25,021
Spices	..	..	1,553	11,874
Sugar	5,737	50,774	..	..
All other articles of merchandise	1,532	82,378	..	..

Cotton, raw.—The increase was in loose cotton from Virudupatti to Tuticorin for use in the local mills.

Cotton, manufactured.—The decrease principally occurred in "Piece-goods (European)" from Madras to the Tanjore and Southern districts where the demand was less than in the previous year.

Grain and Pulse.—Owing to bad crops in the South Arcot, North Arcot, Tanjore, Trichinopoly, Madura and Tinnevelly districts, due to untimely rains, the export of "rice not in the husk" was less than in 1897. The famine in the Northern India having subsided, there was less quantity of "Jawar and Bajra" exported. There was some improvement, however, in the export of "rice in the husk" from the Tanjore and Trichinopoly districts which helped to reduce the decrease to some extent.

Timber.—The decrease in amount was in "wooden sleepers" for the Peralam-Karaikkal Railway since completed, and in "firewood" for different mills, coal being used instead.

Oils.—The increase was chiefly under "Kerosine oil in bulk."

Provisions.—The decrease was under the head "Others" chiefly in tamarinds from the Cuddapah and North Arcot districts to the Tanjore and southern districts, the crop being below the average.

Railway Plant and Rolling-stock.—In 1897, there was exceptional traffic in rails, girders and sleepers carried from Ryapuram and Ennur to Gudur, Venkatachalam and Nellore for the Madras-Bezwada Railway.

Salt.—Owing to the low cart rates, stations near Tuticorin and others along a portion of the East Coast were served by country carts. The stations on the Madras and Southern Mahratta Railways obtained supplies from the West Coast instead of from Nellore.

Spices.—The decrease was chiefly in "betel-nuts" from Tuticorin to Madura and the South Arcot district and from Negapatam to stations on foreign railways on account of smaller imports from Penang, Singapore and Colombo.

Sugar.—The increase was under "Sugar, unrefined" from Tinnevelly to Arcot for the Arcot sugar factories. The production of jaggery in the Tinnevelly district was considerably over the average.

All other articles of merchandise.—The increase was under cocoanuts, cotton-seeds, fibre, plantains and oil-cakes. The crop of cocoanuts in the Tanjore and Trichinopoly districts this year was considerably over the average.

The average sum received for carrying a ton of goods one mile amounted to 8·60 pies against 8·49 pies in the previous year.

The goods earnings for goods train mile were Rs. 2·52 against Rs. 2·47.

The following table shows the working expenses of the Railway during 1898 as compared with the previous year :—

Working expenses.

Head of account.	1897.		1898.		Increase or decrease in amount.	Increase or decrease in the percentage of expenses on earnings.
	Amount. Rs.	Per cent. on gross earnings.	Amount. Rs.	Per cent. on gross earnings.	Rs.	
Maintenance of way, works and stations ..	11,66,115	12·29	9,25,931	10·56	2,40,184	1·73
Locomotive expenses	17,72,538	18·69	17,63,434	20·12	9,104	1·43
Carriage and wagon expenses	5,20,568	5·49	5,27,529	6·02	6,961	0·53
Traffic expenses	8,50,306	8·97	8,27,104	9·44	23,202	0·47
General charges	6,40,475	6·75	6,39,223	7·29	1,252	0·54
Special and miscellaneous expenditure ..	90,697	·96	1,29,897	1·48	39,200	0·52
Total ..	50,40,699	53·15	48,13,118	54·91	2,27,581	1·76

Maintenance of way, works and stations.—1·32 miles were renewed with 50 lb. rails against 12·86 miles in the previous year. The outlay on repairs to stations and buildings, on renewals with cast iron cushions and additional tie bars was considerably less than in 1897. Under "Unclassified expenditure" special debits were included in 1897 on account of the depreciation in value of stores sold.

Locomotive expenses.—There was a large decrease under "Fuel" and "Unclassified Expenditure" due to less train mileage run and to the carriage of less coal. There was an arrear credit adjustment of Rs. 18,103 on account of loss on stores. The decrease was partially nullified by increased outlay under "Renewals of Locomotive Engines" due to the supply of steel tyres for engine wheels and to fitting new cranks, coupling rods and driving axles to "F" class engines and new axles, cranks, and eccentric sheaves to "O" class engines.

Carriage and wagon expenses.—The increase was mainly due to the replacement of old axles by those of larger and stronger type.

Traffic expenses.—The transfer of the Nellore-Gudur section to the Bezwada-Madras Railway on the 1st November 1898 and the reduction of the passenger train service between Pakala and Dharmavaram from 4th April 1898 owing to slackness of traffic on account of plague restrictions account chiefly for the decrease under this head.

General charges.—The decrease is small and calls for no special remarks.

Special and miscellaneous expenditure.—The increase is wholly due to the temporary debit to working expenses of the expenditure incurred on account of the Erode-Nanjangod and Madura-Pamban Railway surveys.

Francis R. Spring
Consulting Engineer for Railways

Madras
June 1899

Narrative Memorandum of Part II of the Administration Report on Railways in India for 1898-99.

MADRAS PRESIDENCY.

Chapter I.—Stores.

(For the official year ending 31st March 1899.)

Madras Railway, Standard Gauge.

General.

The cost of working the Stores Department during the year ended the 31st December 1898 was Rs. 23,514 as compared with Rs. 23,100 in 1897. On this Railway charges for landing and despatching stores are not charged to the Stores Department, but are added to the cost of the articles received.

There was no alteration in the control of stores and stores depot.

The purchases of stores in India during 1898 aggregated Rs. 17,75,626, of which Rs. 1,14,748 were on account of English and Rs. 16,60,878 for country stores. The purchases in 1897 aggregated Rs. 18,26,617.

The following amounts were realized by the sale of surplus and condemned stores and cinders during 1898, viz. :—

—	New.	Old.	Total.	Remarks.
	Rs.	Rs.	Rs.	
Surplus and condemned stores	4,220	65,439	69,659	* This sum was credited to Revenue.
Cinders	..	1,801*	1,801	

as compared with Rs. 94,456 for surplus and condemned stores and Rs. 6,950 for cinders realized in 1897.

Consumption of oil.

The following statement shows the consumption of oils purchased, &c., during 1898 as compared with the previous year :—

Description.	1897.			1898.		
	Total quantity purchased.	Total quantity of purchased oil consumed.	Rate per cwt. during 1897.	Total quantity purchased.	Total quantity of purchased oil consumed.	Rate per cwt. during 1898.
	cwt.	cwt.	Rs. A. P.	cwt.	cwt.	Rs. A. P.
Castor oil	3,418	3,419	16 5 8	3,747	3,723	16 7 5
Linseed oil	139	335	22 4 8	328	267	17 5 6
Mineral oil	..	..	..	..	..	..
Kerosine oil	5,845	6,008	8 3 9	6,826	6,721	7 14 2

South Indian Railway, Metre Gauge.

General.

The cost of working the Stores Department during the year ended the 31st December 1898 was Rs. 48,883 as compared with Rs. 51,952 in 1897. The former amount includes Rs. 6,861 on account of the cost of landing and despatching imported stores at the port of Madras as compared with Rs. 15,057 on this account in 1897.

There was no alteration in the control of stores and store depots.

The purchases of stores in India during 1898 aggregated Rs. 14,39,802, of which Rs. 90,732 were on account of English stores and Rs. 13,49,070 for country stores. The purchases in 1897 aggregated Rs. 12,64,840.

The following amounts were realized by the sale of surplus and condemned stores and cinders during 1898, viz.:—

—	New.	Old.	Total.
	Rs.	Rs.	Rs.
Surplus and condemned stores	13,405	2,109	15,514
Coke and cinders	8,018	2,815	10,833

as compared with Rs. 80,102 for surplus and condemned stores and Rs. 12,853 for coke and cinders realized in 1897.

Consumption of oil.

The following statement shows the consumption of oils purchased, &c., during 1898 as compared with the previous year:—

Description.	1897.			1898.		
	Total quantity purchased.*	Total quantity of purchased oil consumed.	Rate per cwt. during 1897.	Total quantity purchased.	Total quantity of purchased oil consumed.	Rate per cwt. during 1898.
	cwt.	cwt.	Rs. A. P.	cwt.	cwt.	Rs. A. P.
Castor oil	3,025	2,755	18 5 8	2,530	2,598	18 8 9
Cocoanut oil	4,902	4,902	18 13 5	4,701	4,671	17 13 5
Kerosine oil	2,166	2,166	8 4 3	2,230	2,185	6 10 2
Lubricating oil	1,112	1,112	9 0 5	1,809	1,604	9 10 6
Linseed oil	588	402	25 15 5	492½	375½	24 13 7

Chapter II.—Capital.

(For the Calendar year ending 31st December 1898.)

Madras Railway and Extensions, Standard Gauge.

The total Capital of the Company at the close of 1898 was as follows:—

Madras Railway.

	£	£	Rs.
Capital authorized—			
Stock	10,257,630		
Loans	3,319,210		
Capital not bearing interest ...	7,258		
Total Capital authorized ...		13,584,098	14,81,90,162
Capital subscribed—			
Stock	10,257,630		
Capital not bearing interest ...	7,258		
Debentures @ 3½ per cent. ...	100,000		
" @ 3 "	332,700		
" @ 2¾ "	60,000		
" @ 2½ "	405,300		
Total Capital subscribed ...		11,162,888	12,17,76,962
Capital Expenditure—			
Line open for traffic	9,523,817		10,38,96,187
Working stock	1,436,095		1,56,66,488
Stores, etc.	214,344		23,38,295
Capital advance Account in suspense	**216**		**2,352**
Total Capital Expenditure ...	11,174,040		12,18,98,618
Balance available—			
Of Capital authorized	2,410,058		...
" subscribed	**11,152**		...

Madras Railway Extensions (under construction).

	£	£	Rs.
Capital authorized—			
Loans	100,000	...	...
Less discount	1,000		
		99,000	15,93,989
Capital subscribed—			
Debentures @ 2½ per cent.	100,000	...	...
Less discount	1,000		
		99,000	15,93,989
Capital Expenditure—			
Line in course of construction—			
Calicut-Cannanore extension		8,812	1,37,549
Arcot-Ranipet branch		13,202	2,01,485
		22,014	3,39,034
Capital advance Account in suspense		6,203	93,862
Total Capital Expenditure ...		28,217	4,32,896
Balance available—			
Of Capital authorised		70,783	...
„ subscribed		70,783	...

The expenditure of the year on final heads was—

Madras Railway	3,98,229
Calicut-Cannanore extension	86,922
Arcot-Ranipet branch	2,01,485

and the principal works on the main line upon which expenditure was incurred were—

	Rs.
Fitting automatic vacuum brake gear for 6 engines and 200 carriages	37,863
Alterations and additions to Bangalore City station	87,623
Construction of Bogie composites, 3rd-class carriages and brake vans	18,905
Construction of 5 composites and 5 3rd-class carriages	12,764

The following table shows interest charges for 1898 compared with net earnings :—

Interest—On subscribed capital	@ 5	per cent.	... ...	Rs.	47,76,911
Do. do.	@ 4¾	„	... ...	„	5,18,161
Do. do.	@ 4½	„	... ...	„	2,45,455
Do. do.	@ 3½	„	... ...	„	35,455
Do. do.	@ 3	„	... ...	„	1,08,884
Do. do.	@ 2¾	„	... ...	„	18,000
Do. do.	@ 2½	„	... ...	„	1,10,536
				„	58,13,402
Add—Difference of exchange for interest on cost of Arcot-Ranipet branch				„	202
Interest on Capital subscribed for the Calicut-Cannanore extension £100,000 @ 2½ per cent.				„	38,553
Interest on overdrawn capital				„	3,348
				„	58,55,505
Net earnings of the year *less* contribution to Provident Institution				„	54,12,657

After deducting from the net earnings of the year the Company's moiety of surplus profits for the first half of the year, charges for guaranteed interest, contribution to Provident Institution and interest on overdrawn capital, the net result showed a loss to the State for the year of Rs. 5,23,528.

Kolar Gold Fields Railway, Standard Gauge.

The total capital outlay on final heads of accounts to 31st December 1898 was as follows :—

Capital Expenditure—On line open for traffic	Rs.	7,40,183
In suspense	„	69,354
Total	„	8,09,537

Madras-Ennur Section of the East Coast Railway, Standard Gauge.

The total capital outlay on final heads of account to 31st December 1898 was as follows :—

Capital Expenditure—On line open for traffic	Rs.	5,99,150

South Indian Railway, Metre Gauge.

The share capital of the Company remained unchanged and at the close of 1898 was as follows :—

	£	Rs.
(*a*) Share capital authorised (converted at Rs. 14 per £) ...	1,000,000	= 1,40,00,000
(*b*) Share capital subscribed (converted at Rs. 14 per £) ...	1,000,000	= 1,40,00,000

The total capital expended, including outlay from State capital, to the 31st December 1898 amounted to Rs. 7,45,26,344 as shown below, viz. :—

Capital expenditure (including outlay from State capital)—

(i) On construction account	Rs.	7,21,86,970
(ii) On Stores suspense	„	23,28,955
(iii) On Advances in suspense	„	10,419
Total Capital expended ...	„	7,45,26,344

The total capital outlay on final heads of account Rs. 7,21,86,970 as given above to the 31st December 1898 was distributed as follows :—

(*a*) South Indian Railway including Nellore branch ...	Rs.	5,58,77,319
(*b*) Villupuram-Dharmavaram section	„	1,63,09,651
Total ...	„	7,21,86,970

The expenditure during 1898 on final heads was a net credit of Rs. 20,61,516. The following are the principal works on which expenditure was incurred :—

Capital cost of the section of the line between Gudur and Nellore transferred to the Bezwada-Madras Railway	Rs.	**22,53,790**
Re-arrangement of the Gudur station	„	56,431
Constructing 8 composite carriages on mail van underframes ...	„	34,684

The following shows interest charges for 1898 compared with net earnings :—

Interest in terms of Company's contract—

(i) On Company's capital at 3 per cent.	Rs.	4,20,000
(ii) On State capital (£425,000 debenture stock) at 4½ per cent.	„	2,94,231
(iii) On expenditure and cash balance at 3 per cent.	„	16,70,455
Add—(iv) Share of surplus profits payable to Company	„	2,66,184
(v) Total	„	26,50,870
(vi) Net earnings of year *less* Provident Fund contribution ...	„	38,38,671
(vii) Excess of net earnings over interest charges	„	11,87,801

Surplus profits.

The divisible surplus profits of the first half of 1898 at the date of the submission of the accounts after deducting a sum of Rs. 19,637 being interest due on debentures raised for the Calicut-Cannanore extension amounted to Rs. 1,61,359 as against Rs. 1,71,937 in the first half of the previous year. There were no surplus profits in the second-half of 1898, the net earnings amounting to Rs. 23,45,016 having fallen short of the guaranteed interest and contribution to Provident Institution by Rs. 6,02,069.

After deducting from the net earnings of the year the Company's moiety of surplus profits, charges for guaranteed interest, contribution to Provident Institution, interest on overdrawn capital and interest on debentures raised for the Calicut-Cannanore extension, the net result showed a loss to the State for the year of Rupees 5,40,305 as against a gain of Rs. 89,585 for the previous year.

Gross Earnings.

The following table shows the gross earnings under main heads as compared with the previous year :—

Class of ernings.	Previous year. Rs.	1898. Rs.	Decrease. Rs.
Coaching	46,32,757	40,99,357	— 5,33,400
Goods	68,65,894	66,52,261	— 2,13,633
Electric telegraph	20,492	17,351	— 3,141
Sundries	2,18,898	1,99,581	— 19,317
Total ..	1,17,38,041	1,09,68,550	— 7,69,491

Coaching.—The number of passengers of the various classes carried including Troops and Police and season tickets and the earnings therefrom compare as follows :—

Year.	First class.		Second class.		Third class.		Total.	
	No.	Earnings. Rs.	No.	Earnings. Rs.	No.	Earnings. Rs.	No.	Earnings. Rs.
Previous year ..	27,766	1,99,336	117,232½	2,53,926	10,929,002½	35,48,667	11,074,001	40,01,929
1898	25,058½	2,01,378	112,723	2,56,743	9,121,191	30,33,276	9,258,972½	34,91,397
Increase	..	2,042	..	2,817	..	..	..	..
Decrease	2,707½	..	4,509½	..	1,807,811½	5,15,391	1,815,028½	5,10,532

The decrease in third-class traffic may be ascribed generally to a large falling off in the number travelling attributable to plague restrictions during the year.

The average sum received for carrying a passenger one mile amounted to 2·31 pies against 2·26 pies in the previous year.

The coaching earnings per passenger train mile were 3·26 against 3·58.

Goods.—The following is a summary of the tonnage of goods lifted and the earnings therefrom as compared with the previous year :—

Class of earnings.	Previous year.		1898.		Increase or decrease.	
	TONS.	Rs.	TONS.	Rs.	TONS.	Rs.
General merchandise	888,133	60,19,633	786,082	56,02,154	— 102,051	— 4,17,479
Military stores	1,768	80,054	1,932	75,834	+ 164	— 4,220
Railway materials for construction (home line only)	1,523	4,831	2,996	9,473	+ 1,473	+ 4,642
Coal and coke for the public and foreign railways	128,048	5,68,838	170,543	7,58,564	+ 42,495	+ 1,89,726
Coal and coke for construction (home line only)	..	..	..	..	..	..
Coal and coke for revenue only ..	32,216	38,802	15,345	35,036	— 16,871	— 3,766
Revenue stores other than coal and coke	197,096	92,099	195,562	1,20,463	— 1,534	+ 28,364
Live stock	1,563	40,188	1,370	29,592	— 193	— 10,596
Rents miscellaneous	..	21,449	..	21,145	..	— 304
Total ..	1,250,347	68,65,894	1,173,830	66,52,261	— 76,517	— 2,13,633

The excess of interest incurred by the State over the amount charged in terms of the Company's contract results in a net loss to the State of Rs. 1,77,034 thus—

Interest charges incurred by the State—			
(i) On Company's capital		Rs.	4,61,538
(ii) On Government capital—			
Debenture stock at 4½ per cent. ...	Rs. 2,94,231		
Indian stock at 3 per cent. ...	„ 18,44,445		
Indian stock at 2½ per cent. ...	„ 1,17,269		
Indian outlay at 4 per cent. ...	„ 10,32,038		
		„	32,87,983
(iii) Surplus profit payable to Company		„	2,66,184
Total ...		„	40,15,705
(iv) Less interest charged in terms of contract		„	26,50,870
Excess of actual charges over contract charges		„	13,64,835
Excess of net earnings over interest charges		„	11,87,801
Net loss to the State ...		„	1,77,034

Mayavaram-Mutupet Railway, Metre Gauge.

The total capital outlay on final heads of account to the 31st December 1898 was Rs. 24,94,905
The amount held in suspense was ... ... „ *Nil.*
The expenditure of the year on final heads was ... ... „ 3,051

Interest charges compare as follows with net earnings :—

Interest on capital outlay at 4 per cent.	Rs.	99,843
Net earnings	„	77,627
Excess of interest charges over net earnings ...	„	22,216

Chapter IV.—Details of Revenue Earnings and Expenditure.

(For the calendar year ending 31st December 1898.)

Madras Railway System, Standard Gauge.

The open mileages of the several sections were as follows :—

	MLS.	CHS.	FT.
Madras Railway	839	17	65
Kolar Gold Fields Railway	10	0	0
Madras-Ennur Railway	8	36	8
	857	54	7 = 857·68 miles.

The mean mileage worked during the year was 857·68 miles, the same as it was in the previous year.

The following table shows the general results of the year's working as compared with those of the previous year :—

General Results.

Year.	Mean mileage worked. MILES.	Train mileage. MILES.	Gross earnings. RS.	Working expenses.* RS.	Net earnings. RS.	Percentage of working expenses on gross earnings.	Gross earnings per mean mile worked per week. RS.	Percentage of net earnings on total capital outlay including suspense.
Previous year ..	857·68	2,647,436	1,17,38,041	56,22,068	61,15,973	47·90	263·19	4·98
1898	857·68	2,600,546	1,09,68,550	53,66,035	56,02,515	48·92	245·94	4·54
Increase or decrease ..	..	— 46,890	— 7,69,491	— 2,56,033	— 5,13,458	+ 1·02	— 17·25	— ·44
Percentage of increase or decrease ..	..	— 1·77	— 6·56	— 4·55	— 8·40	..	— 6·55	..

* Includes contribution to the Provident Fund.

The noticeable fluctuations of traffic under General Merchandise are noted below :—

Class of goods.	Tons.		Amount, Rs.	
	Increase.	Decrease.	Increase.	Decrease.
Cotton, raw	6,181	..	58,853	..
Oil-seeds	6,251	..	69,238	..
Grain and pulse	..	68,796	..	2,47,397
Hides and skins	..	9,981	..	1,49,908

The probable causes of these commodities may be attributed as follows :—

Cotton, Raw.—Larger despatches of pressed cotton from Adoni, Raichur and Southern Mahratta Railway to Madras and from Guntakal to Great Indian Peninsula Railway.

Oil-seeds.—Larger despatches of linseed from Adoni to Great Indian Peninsula Railway and from Southern Mahratta Railway to Madras; of til or gingelly seeds from Southern Mahratta Railway to Madras, North Arcot and Coimbatore districts and from Great Indian Peninsula Railway to Madras; of other oil-seeds from Bangalore City to Madras, North Arcot district and South Indian Railway, from Adoni to Coimbatore district, from Southern Mahratta Railway to Madras, Salem and Coimbatore districts, and from Great Indian Peninsula Railway to Madras.

Grain and Pulse.—Smaller despatches of wheat from Madras to Katpadi and Mettupalaiyam and from Great Indian Peninsula Railway to Madras and Bangalore City; of rice not in the husk from Arcot to Calicut, from Katpadi to Malabar district and Bangalore branch, from Southern Mahratta Railway to Madras and Bellary district, and from South Indian Railway to Malabar and Coimbatore districts and Bangalore branch; of jawar and bajra (cholum and cumbu) from Salem to Malabar and Bellary districts and Great Indian Peninsula Railway, from Erode and Tiruppur to Malabar district and Great Indian Peninsula and Southern Mahratta Railways, and from Southern Mahratta Railway to Salem and Bellary districts; of other grains and pulse from Salem district to Madras and Bangalore branch and Great Indian Peninsula and Southern Mahratta Railways, and from Coimbatore district to Bangalore branch and Great Indian Peninsula and Southern Mahratta Railways.

Hides and Skins.—Smaller despatches of cattle hides (dressed or tanned) from Arcot and Vaniyambadi to Madras and from Coimbatore to Madras and Malabar district; of cattle hides (raw) from Madras to North Arcot district and from Great Indian Peninsula and Southern Mahratta Railways to Madras and Salem district; of sheep skins (dressed or tanned) from North Arcot district to Madras and from Great Indian Peninsula and Southern Mahratta Railways to Madras; of sheep skins (raw) from Madras to North Arcot and Salem districts and from Great Indian Peninsula and Southern Mahratta Railways to Madras.

The average sum received for carrying a ton of goods one mile amounted to 8·35 pies against 8·36 pies in the previous year.

The goods earnings per goods train mile were Rs. 4·95 against Rs. 5·07.

The following table shows the working expenses of the railway system during 1898 as compared with the previous year :—

Working Expenses.

Head of account.	1897.		1898.		Increase or decrease in amount.	Increase or decrease in the percentage of expenses on earnings.
	Amount. Rs.	Per cent. on gross earnings.	Amount. Rs.	Per cent. on gross earnings.	Rs.	
Maintenance of way, works and stations.	12,90,151	10·99	12,78,668	11·66	— 11,483	+ ·67
Locomotive expenses	21,70,119	18·49	20,63,323	18·81	— 1,06,796	+ ·32
Carriage and wagon expenses	6,15,806	5·25	4,76,721	4·35	— 1,39,085	— ·90
Traffic expenses	8,45,557	7·21	8,71,137	7·94	+ 25,580	+ ·73
General charges	5,80,336	4·95	5,72,964	5·22	— 7,372	+ ·27
Special and miscellaneous expenditure ..	1,19,599	1·01	1,03,222	·94	— 16,377	— ·07
Total ..	56,22,068	47·90	53,66,035	48·92	— 2,56,033	+ 1·02

The decrease under Maintenance of Way, Works and Stations was chiefly due to the absence of special outlay on repairs of bridges and on repairs of stations and buildings.

The decrease under Locomotive Expenses is owing to no new engines having been erected in 1898, whereas the cost of four engines was charged off in the previous year.

The decrease under Carriage and Wagon Expenses is mostly due to a smaller number of vehicles having been repaired as well as to more economical working of the department.

The increase under Traffic Expenses is due to a retiring gratuity paid to Mr. G. R. Byron as well as to mileage allowances paid to guards and assistant guards during the whole of the year 1898, as against only six months from July 1897 in the previous year, also to a larger outlay on wagon covers.

The decrease under Special and Miscellaneous Expenditure is due to commission and stamp duty on debentures having been charged off in 1897.

South Indian Railway System, Metre Gauge.

The open mileages of the several sections were as follows:—

South Indian Railway	1,017·88	miles.
Mayavaram-Mutupet Railway	53·99	,,
Pondicherry-Railway	7·80	,,
Peralam-Karaikkal Railway	14·45	,,
	1,094·12	,,

The mean mileage worked during the year 1898 was 1,111·02 against 1,103·38 miles in the previous year, the increase of 7·64 miles being due to the opening of the Peralam-Karaikkal Railway, 14·45 miles, on the 14th March 1898 and to the section from Gudur to Nellore, 23·71 miles, being transferred to the Bezwada-Madras Railway on 1st November 1898.

General Results.

The following table compares the general results of the year's working with those of the previous year:—

—	Mean mileage worked. Miles.	Train mileage. Miles.	Gross earnings. Rs.	Working expenses. Rs.	Net earnings. Rs.	Percentage of working expenses on gross earnings.	Gross earnings per mean mile worked per week. Rs.	Percentage of net earnings on capital outlay including suspense.
Previous year.	1,103·38	3,640,615	94,84,083	50,40,699	44,43,384	53·15	165	5·57
1898 ..	1,111·02	3,489,288	87,65,343	48,13,118	39,52,225	54·91	152	5·05
Increase or decrease ..	7·64	151,327	7,18,740	2,27,581	4,91,159	1·76	13	·52
Percentage of increase or decrease.	·69	4·16	7·58	4·51	11·05	..	7·88	..

Surplus Profits.

The divisible surplus profits for the first half of 1898 of the South Indian Railway proper amounted to Rs. 8,08,022 and those of the second half to Rs. 6,30,166, making up a total of Rs. 14,38,188 as against Rs. 18,53,202 in the previous year— a decrease of Rs. 4,15,014.

The net earnings for the year 1898 of the South Indian Railway proper were Rs. 38,52,349, and deducting therefrom the Company's share of surplus profits, charges for guaranteed interest, additional contribution to the Provident Fund (the ordinary contribution to the fund being a debit to working expenses) and other incidental adjustments, the result was a gain to the State for the year of Rs. 11,72,981 as against Rs. 15,15,410 in the previous year— a decrease of Rs. 3,42,429.

The following table shows the gross earnings under main heads as compared with the previous year:—

Gross Earnings.

Class of earnings.	1897. Rs.	1898. Rs.	Increase or decrease. Rs.
Coaching	51,77,193	45,98,337	5,78,856
Goods	40,03,827	38,99,935	1,03,892
Electric Telegraph	22,472	22,318	154
Sundries	2,80,591	2,44,753	35,838
Total ..	94,84,083	87,65,343	7,18,740

Coaching.—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.	
	Number.	Earnings. Rs.	Number.	Earnings. Rs.	Number.	Earnings. Rs.	Number.	Earnings. Rs.
1897	22,542½	72,920	192,099	1,80,532	13,975,846½	46,72,829	14,190,488	49,26,281
1898	23,891	82,652	118,563	1,59,636	12,755,013½	40,93,932	12,897,467½	43,36,220
Increase or decrease ..	1,348½	9,732	73,536	20,896	1,220,833	5,78,897	1,293,020½	5,90,061

The above table shows a net decrease of 1,293,021 in the number of passengers carried and Rs. 5,90,061 in receipts.

The decrease is ascribed to—

(1) The restrictions imposed on account of the plague.
(2) The unfavourable season which resulted in poor attendance at important local festivals.
(3) The Mahamagam festival which occurs but once in twelve years was held at Kumbakonam in 1897.

The average sum received for carrying a passenger one mile amounted to 2·08 pies against 2·06 pies in the previous year.

The coaching earnings per passenger train mile were Rs. 2·37 against Rs. 2·56.

Goods.—The following is a summary of the tonnage of goods lifted and the earnings therefrom as compared with the previous year:—

Class of earnings.	1897.		1898.		Increase or decrease.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
General merchandise	953,735	38,16,507	860,979	36,96,256	92,756	1,20,251
Military stores	110	2,635	320	3,024	210	389
Railway materials for construction (Home line only)	27,613	10,862	119,218	16,136	91,605	5,274
Coal and coke for the public and foreign railways	11,733	17,986	13,255	17,644	1,522	342
Coal and coke for revenue only ..	32,590	39,532	29,085	33,056	3,505	6,476
Revenue stores other than coal and coke	436,721	89,522	679,542	1,02,941	242,821	13,419
Live stock	409	6,753	860	8,291	451	1,538
Rents, miscellaneous, &c.	..	20,107	..	22,587	..	2,480
Total ..	1,462,911	49,03,904	1,703,259	38,99,935	240,348	1,03,969
Less—Outstandings irrecoverable ..	..	77	..	..	..	77
Total ..	1,462,911	40,03,827	1,703,259	38,99,935	240,348	1,03,892

The noticeable fluctuations in the traffic under "General Merchandise" are given below :—

Class of goods.	Increase.		Decrease.	
	TONS.	RS.	TONS.	RS.
Cotton, raw	1,293	8,193	..	..
Cotton, manufactured	..	..	1,039	18,795
Grain and pulse	..	..	74,049	1,24,825
Timber	2,229	..	..	9,359
Oils	..	8,233	127	..
Provisions	..	..	1,539	17,839
Railway plant and rolling-stock	..	..	24,951	63,249
Salt	..	..	5,914	25,021
Spices	..	..	1,553	11,874
Sugar	5,737	50,774	..	..
All other articles of merchandise	1,532	82,378	..	..

Cotton, raw.—The increase was in loose cotton from Virudupatti to Tuticorin for use in the local mills.

Cotton, manufactured.—The decrease principally occurred in "Piece-goods (European)" from Madras to the Tanjore and Southern districts where the demand was less than in the previous year.

Grain and Pulse.—Owing to bad crops in the South Arcot, North Arcot, Tanjore, Trichinopoly, Madura and Tinnevelly districts, due to untimely rains, the export of "rice not in the husk" was less than in 1897. The famine in the Northern India having subsided, there was less quantity of "Jawar and Bajra" exported. There was some improvement, however, in the export of "rice in the husk" from the Tanjore and Trichinopoly districts which helped to reduce the decrease to some extent.

Timber.—The decrease in amount was in "wooden sleepers" for the Peralam-Karaikkal Railway since completed, and in "firewood" for different mills, coal being used instead.

Oils.—The increase was chiefly under "Kerosine oil in bulk."

Provisions.—The decrease was under the head "Others" chiefly in tamarinds from the Cuddapah and North Arcot districts to the Tanjore and southern districts, the crop being below the average.

Railway Plant and Rolling-stock.—In 1897, there was exceptional traffic in rails, girders and sleepers carried from Royapuram and Ennur to Gudur, Venkatachalam and Nellore for the Madras-Bezwada Railway.

Salt.—Owing to the low cart rates, stations near Tuticorin and others along a portion of the East Coast were served by country carts. The stations on the Madras and Southern Mahratta Railways obtained supplies from the West Coast instead of from Nellore.

Spices.—The decrease was chiefly in "betel-nuts" from Tuticorin to Madura and the South Arcot district and from Negapatam to stations on foreign railways on account of smaller imports from Penang, Singapore and Colombo.

Sugar.—The increase was under "Sugar, unrefined" from Tinnevelly to Arcot for the Arcot sugar factories. The production of jaggery in the Tinnevelly district was considerably over the average.

All other articles of merchandise.—The increase was under cocoanuts, cotton-seeds, fibre, plantains and oil-cakes. The crop of cocoanuts in the Tanjore and Trichinopoly districts this year was considerably over the average.

The average sum received for carrying a ton of goods one mile amounted to 8·60 pies against 8·49 pies in the previous year.

The goods earnings for goods train mile were Rs. 2·52 against Rs. 2·47.

The following table shows the working expenses of the Railway during 1898 as compared with the previous year :—

Working expenses.

Head of account.	1897.		1898.		Increase or decrease in amount.	Increase or decrease in the percentage of expenses on earnings.
	Amount. Rs.	Per cent. on gross earnings.	Amount. Rs.	Per cent. on gross earnings.	Rs.	
Maintenance of way, works and stations..	11,66,115	12·29	9,25,931	10·56	2,40,184	1·73
Locomotive expenses	17,72,538	18·69	17,63,434	20·12	9,104	1·43
Carriage and wagon expenses	5,20,568	5·49	5,27,529	6·02	6,961	0·53
Traffic expenses	8,50,306	8·97	8,27,104	9·44	23,202	0·47
General charges	6,40,475	6·75	6,39,223	7·29	1,252	0·54
Special and miscellaneous expenditure ..	90,697	·96	1,29,897	1·48	39,200	0·52
Total ..	50,40,699	53·15	48,13,118	54·91	2,27,581	1·76

Maintenance of way, works and stations.—1·32 miles were renewed with 50 lb. rails against 12·86 miles in the previous year. The outlay on repairs to stations and buildings, on renewals with cast iron cushions and additional tie bars was considerably less than in 1897. Under "Unclassified expenditure" special debits were included in 1897 on account of the depreciation in value of stores sold.

Locomotive expenses.—There was a large decrease under "Fuel" and "Unclassified Expenditure" due to less train mileage run and to the carriage of less coal. There was an arrear credit adjustment of Rs. 18,103 on account of loss on stores. The decrease was partially nullified by increased outlay under "Renewals of Locomotive Engines" due to the supply of steel tyres for engine wheels and to fitting new cranks, coupling rods and driving axles to "F" class engines and new axles, cranks, and eccentric sheaves to "O" class engines.

Carriage and wagon expenses.—The increase was mainly due to the replacement of old axles by those of larger and stronger type.

Traffic expenses.—The transfer of the Nellore-Gudur section to the Bezwada-Madras Railway on the 1st November 1898 and the reduction of the passenger train service between Pakala and Dharmavaram from 4th April 1898 owing to slackness of traffic on account of plague restrictions account chiefly for the decrease under this head.

General charges.—The decrease is small and calls for no special remarks.

Special and miscellaneous expenditure.—The increase is wholly due to the temporary debit to working expenses of the expenditure incurred on account of the Erode-Nanjangod and Madura-Pamban Railway surveys.

Narrative Memorandum of Part II of the Administration Report on Railways in India for 1897-98:

MADRAS PRESIDENCY.

Chapter I.—Stores.

(For the official year ending 31st March 1898.)

Madras Railway, Standard Gauge.

General.

The cost of working the Stores Department during the year ended the 31st December 1897 was Rs. 23,100 as compared with Rs. 22,329 in 1896; charges for landing and despatching stores are not charged to the Stores Department but are added to the cost of the articles received.

There was no alteration in the control of stores and stores depot.

The purchases of stores in India during 1897 aggregated Rs. 18,26,617, of which Rs. 93,124 were on account of English and Rs. 17,33,493 for country stores. The purchases in 1896 aggregated Rs. 19,66,616.

The following amounts were realized by the sale of surplus and condemned stores and cinders during 1897, viz.:—

Class of stores.	New.	Old.	Total.	Remarks.
	Rs.	Rs.	Rs.	
Surplus and condemned stores	2,946	91,510	94,456	* This sum was credited to Revenue.
Cinders	..	6,950 *	6,950	

as compared with Rs. 1,35,263 for surplus and condemned stores and Rs. 3,822 for cinders realized in 1896.

Consumption of oil.

The following statement shows the consumption of oils purchased, &c., during 1897 as compared with the previous year:—

Description.	1896.			1897.		
	Total quantity purchased.	Total quantity of purchased oil consumed.	Rate per cwt. during 1896.	Total quantity purchased.	Total quantity of purchased oil consumed.	Rate per cwt. during 1897.
	cwt.	cwt.	Rs A. P.	cwt.	cwt.	Rs. A. P.
Castor oil	3,445	3,580	14 6 1	3,418	3,419	16 5 8
Linseed oil	284	585	22 9 8	139	335	22 4 8
Mineral oil	..	..	..	..	..	..
Kerosine oil	5,673	5,534	7 6 6	5,845	6,008	8 3 9

South Indian Railway, Metre Gauge.

General.

The cost of working the Stores Department during the year ended the 31st December 1897 was Rs. 51,952 as compared with Rs. 36,184 in 1896; of the former amount, however, Rs. 15,057 represents the cost (exclusive of supervising charges) of landing and despatching imported stores at the ports at Negapatam and Madras as compared with Rs. 6,542 on this account in 1896. The landing and despatching charges on stores imported for Peralam-Karaikkal Railway worked by this Company were Rs. 2,101 during the year under report.

There was no alteration in the control of Stores and Stores depots.

The purchases of stores in India during 1897 aggregated Rs. 12,64,840, of which Rs. 58,690 were on account of English and Rs. 12,06,150 for country stores. The purchases in 1896 aggregated Rs. 14,58,302.

The following amounts were realized by the sale of surplus and condemned stores and cinders during 1897, viz.:—

Class of stores.	New.	Old.	Total.
	Rs.	Rs.	Rs.
Surplus and condemned stores	62,504	17,598	80,102
Coke and cinders	9,570	3,283	12,853

as compared with Rs. 4,603 for surplus and condemned stores and Rs. 10,536 for coke and cinders realized in 1896.

The following statement shows the consumption of oils purchased, &c., during 1897 as compared with the previous year:—

Consumption of oil.

Description.	1896.			1897.		
	Total quantity purchased.	Total quantity of purchased oil consumed.	Rate per cwt. during 1896.	Total quantity purchased.	Total quantity of purchased oil consumed	Rate per cwt. during 1897.
	cwt.	cwt.	Rs. A. P.	cwt.	cwt.	Rs. A. P.
Castor oil	2,320	2,320	14 9 4	3,025	2,755	18 5 8
Cocoanut oil	4,567	4 474	19 0 8	4,902	4,902	18 13 5
Kerosine oil	2,099	2,077	7 14 1	2,166	2,166	8 4 3
Lubricating oil	1,406	1,163	9 12 6	1,112	1,112	9 0 5
Non-corrosive cylinder oil ..	591	449	14 4 7	..	..	..
Linseed oil	349	349	28 10 11	588	402	25 15 5

Chapter II.—Capital.

(For the calendar year ending 31st December 1897.)

Madras Railway, Standard Gauge.

The total Capital of the Company at the close of 1897 was as follows:—

	£	£	Rs.
Capital authorized—			
Stock	10,257,630		
Loans	3,419,210		
Total Capital authorized ...		13,676,840	14,92,01,891
Capital subscribed—			
Stock	10,257,630		
Capital not bearing interest ...	7,536		
Debentures @ 3¼ per cent. ...	202,200		
„ @ 3 „ ...	332,700		
„ @ 2¾ „ ...	60,000		
„ @ 2½ „ ...	403,100		
Total Capital subscribed ...		11,263,166	12,33,84,886 *
Capital Expenditure—			
Line open for traffic		9,494,924	10,35,80,984
Working stock—		1,428,484	1,55,83,462
Line in course of construction—			
Calicut-Cannanore extension		3,144	50 627 †
Stores, etc		215,663	23,52,687
Capital advance Account in suspense ...		— 2,256	— 24,614
Total Capital Expenditure ...		11,139,959	12,15,4[illegible],146
Balance available—			
Of Capital authorized		2,[illegible]36,881	
„ Capital subscribed		123,207	

* £11,164,166 @ 1s. 11*d.* the rupee and £99,000 @ 1s. 2·906*d.* the rupee. † @ 1s. 2·906*d.* exchange.

The expenditure of the year on final heads was Rs. 5,86,843 and the principal works upon which expenditure was incurred are—

Gas-making plant lamps and fittings	Rs.	34,252
Fitting ten engines and tenders and 50 carriages with automatic vacuum brake gear	„	28,321
Two locomotive engines for working Madras-Ennur section of the Bezwada-Madras Railway	„	32,805
Rolling stock (2 Bogie composites, I and II class, 17 III class, 2 III class with brakes and two brake vans) for Madras-Ennur section of the Bezwada-Madras Railway ..	„	76,902
Fitting ten engines and 50 carriages with automatic vacuum brake gear	„	34,165
Alterations and additions to Bangalore city station ...	„	46 516
Conversion of Nandalur into an engine changing station ...	„	32,526

The following shows interest charges for 1897 compared with net earnings:—

Interest—On subscribed capital @ 5 per cent.	Rs.	47,76,911
Do. do. @ 4¾ „	„	5,18,161
Do. do. @ 4½ „	„	2,45,455
Do. do. @ 3½ „	„	71,689
Do. do. @ 3 „	„	1,09,718
Do. do. @ 2¾ „	„	18,000
Do. do. @ 2½ „	„	57,284
	„	57,97,218
Net earnings of the year less contribution to Provident Institution	„	59,82,565
Excess of net earnings over interest charges	„	1,85,347

The divisible surplus profits of the first half of 1897 at the date of submission of the accounts amounted to Rs. 1,71,937 and of the second half-year Rs. 7,232. There were no surplus profits during the previous year.

After deducting from the net earnings of the year the Company's moiety of surplus profits, charges for guaranteed interest, contribution to Provident Institution and interest on overdrawn capital, the net result showed a gain to the State for the year of Rs. 89,585.

Kolar Gold Fields Railway, Standard Gauge.

The total capital outlay on final heads of account to 31st Dec. 1897 was as follows:—

Capital Expenditure—On line open for traffic	Rs.	7,39,451
In suspense	„	51,623
Total	„	7,91,074

Madras-Ennur Section of the Bezwada-Madras Railway, Standard Gauge.

The total capital outlay on final heads of account to 31st Dec. 1897 was as follows:—

Capital Expenditure—On line open for traffic	Rs.	5,92,618

South Indian Railway, Metre Gauge.

The share capital of the new Company remained unchanged and at the close of 1897 was as follows:—

	£	Rs.
(*a*) Share capital authorized (converted at Rs. 14 per £) ...	1,000,000	= 1,40,00,000
(*b*) Share capital subscribed (converted at Rs. 14 per £) ...	1,000,000	= 1,40,00,000

The total capital expended, including outlay from State capital, to the 31st December 1897 amounted to Rs. 7,66,46,858 as shown below, viz. :—

Capital expenditure (including outlay from State capital)—		
On construction account	Rs.	7,42,48,486
On Stores suspense	„	23,90,982
On Advances in suspense	„	7,390
Total Capital expenditure ...	„	7,66,46,858

The total capital outlay on final heads of account Rs. 7,12,48,486 as given above to the 31st December 1897 was distributed as follows : —

South Indian Railway including Nellore branch	Rs.	5,57,48,651
Villupuram-Dharmavaram section	„	1,84,99,835

The expenditure during 1897 on final heads was Rs. 1,56,532, of which Rs. 1,40,315 was incurred in providing five additional "O" class engines.

The following figures show the comparison of interest charges for 1897 with net earnings :—

Interest in terms of Company's contract—			
(i) On Company's capital at 3 per cent.	Rs.	4,20,000	
(ii) On State capital (£ 425,000) at 4½ per cent.	„	3,13,951	
(iii) On expenditure and cash balance at 3 per cent. ...	„	17,05,473	
Add—(iv) Share of surplus profits payable to Company ...	„	3,37,792	
(v) Total interest charges	„	27,77,216	
(vi) Net earnings of year less Provident Fund contribution...	„	42,95,899	
(vii) Excess of net earnings over interest charges	„	15,18,683	

The excess of interest incurred by the State, over the amount charged in terms of the Company's contract, results in a net gain to the State of Rs. 81,965 as shown below :—

Interest charges incurred by the State—			
(i) On Company's capital	Rs.		4,77,163
(ii) On Government capital—			
Debenture stock at 4½ per cent. ..	Rs.	3,04,192	
Indian stock at 3 per cent.	„	19,06,888	
Do. at 2½ per cent.	„	1,21,239	
Indian outlay at 4 per cent.	„	10,66,660	
	„		33,98,979
(iii) Surplus profit payable to Company—paragraph (*a*) (iv) ...	„		3,37,792
Total ...	„		42,13,934
(iv) Less interest charged in terms of contract—paragraph (*a*) (v)	„		27,77,216
Excess of actual charges over contract charges	„		14,36,718
Excess of net earnings over interest charges—paragraph (*a*) (vii).	„		15,18,683
Net gain to the State ...	„		81,965

Mayavaram-Mutupet Railway, Metre Gauge.

The total capital outlay on final heads of account to the 31st December 1897 was	Rs.	24,91,854
The amount held in suspense was	„	*Nil.*
The expenditure of the year on final heads was	„	42,274

The expenditure was chiefly incurred on enlarging the Peralam station to accommodate traffic of the Peralam-Karaikkal Railway.

Interest charges compare as follows with net earnings :—

Interest on capital outlay at 4 per cent.	Rs.	99,159
Net earnings (line being opened on the 2nd April 1894) ...	„	1,11,496
Excess of net earnings over interest charges	„	12,337

Chapter IV.—Details of Revenue Earnings and Expenditure.

(*For the calendar year ending 31st December* 1897.)

Madras Railway System, Standard Gauge.

The open mileage of the several sections were as follows :—

	MLS.	CHS.	FT.
Madras Railway	839	17	65
Kolar Gold Fields Railway	10	0	0
Madras-Ennur Railway	8	36	8
	857	54	7 = 857·68 miles.

The mean mileage worked during the year was 857·68 miles against 856·47 miles in the previous year.

The following table shows the general results of the year's working as compared with those of the previous year :—

General Results.

Year.	Mean mileage worked.	Train mileage.	Gross earnings.	Working expenses including contribution to Provident Fund.	Net earnings.	Percentage of working expenses on gross earnings.	Gross earnings per mean mile worked per week.	Percentage of net earnings on total capital outlay including suspense.
			Rs.	Rs.	Rs.		Rs.	
Previous year ..	856·47	2,544,645	*1,10,86,066	56,38,124	54,58,773	50·81	248·92	4·46
1897	857·68	2,647,436	1,17,38,041	56,22,068	61,15,973	47·90	263·19	4·98
Increase or decrease ..	+ 1·21	+ 102,791	+ 6,51,975	— 16,056	+ 6,57,200	— 2·91	+ 14·27	+ ·52
Percentage of increase or decrease ..	+ ·14	+ 4·04	+ 5·88	— ·28	+ 12 0¼	..	+ 5·73	..

* Excludes 5 per cent. of Kolar Gold Fields and Madras-Ennur Railways.

The following table shows the gross earnings under main heads as compared with the previous year :—

Gross Earnings.

Class of earnings.	1896. Rs.	1897. Rs.	Increase or decrease. Rs.
Coaching	46,68,377	46,32,757	— 35,620
Goods	62,11,931	68,65,894	+ 6,53,963
Electric telegraph	20,516	20,492	— 24
Sundries	1,85,242	2,18,898	+ 33,656
Total ..	1,10,86,066	1,17,38,041	+ 6,51,975

Coaching.—The number of passengers of the various classes carried including troops and police and season tickets and the earnings therefrom compare as follows :—

Year.	First class.		Second class.		Third class.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
1896	26,455	2,00,986	114,972½	2,47,335	10,469,610	36,32,018	10,611,037½	40,80,339
1897	27,766	1,99,336	117,232½	2,53,926	10,929,002½	35,48,667	11,074,001	40,01,929
Increase	1,311	..	2,260	6,591	459,392½	..	462,963½	..
Decrease	..	1,650	..	..	..	83,351	..	78,410

The increase in numbers with a falling off in money under first class and the increases in numbers and amount under second class are due to ordinary fluctuations of traffic and to an abnormal traffic under troops in connection with "Malakand and Tirah Expeditions".

The third-class traffic shows an increase in numbers and a decrease in amount.

The average sum received for carrying a passenger one mile amounts to 2·26 pies against 2·27 pies in the previous year.

The coaching earnings per passenger train mile were Rs. 3·58 against Rs. 3·56.

Goods.—The following is a summary of the tonnage of goods lifted and the earnings therefrom as compared with the previous year:—

Class of earnings.	1896.		1897.		Increase or decrease.	
	TONS.	RS.	TONS.	RS.	TONS.	RS.
General merchandise	786,429	55,05,278	888,133	60,19,633	+ 101,704	+ 5,14,355
Military stores	1,903	78,319	1,768	80,054	— 135	+ 1,735
Railway materials for construction (home line only)	1,115	3,461	1,523	4,831	+ 408	+ 1,370
Coal and coke for the public and foreign railways	95,002	4,45,348	128,048	5,68,838	+ 33,046	+ 1,23,490
Coal and coke for construction (home line only)	..	..	..	..	..	..
Coal and coke for revenue only ..	32,037	29,121	32,216	38,802	+ 179	+ 9,681
Revenue stores other than coal and coke	222,565	90,440	197,096	92,099	— 25,469	+ 1,659
Live stock	1,757	34,591	1,563	40,188	— 194	+ 5,597
Rents, miscellaneous	..	25,373	..	21,449	..	— 3,924
Total ..	1,140,808	62,11,931	1,250,347	68,65,894	+ 109,539	+ 6,53,963

The noticeable fluctuations of traffic under "general merchandise" are noted below:—

Class of goods.	Tons.		Amount, Rs.	
	Increase.	Decrease.	Increase.	Decrease.
Grain and pulse	72,783	..	3,86,835	..
Timber	14,601	..	1,21,001	..
Cotton, raw	..	7,269	..	92,132
Sugar	..	7,109	..	61,315

The probable causes of these fluctuations may be attributed as follows:—

Grain and Pulse.—Larger despatches of rice not in the husk from Arcot to Malabar district, from Katpadi to Malabar district and Bangalore branch and from the South Indian Railway to Bangalore branch and Malabar district; of jawar and bajra (cholam and cumbu) from Salem and Coimbatore districts to Malabar district, Bangalore branch, Bellary district, Southern Mahratta Railway and Great Indian Peninsula Railway; of grain and pulse from Bangalore branch to Madras, Salem and Coimbatore districts, and from Salem district to Madras, Cuddapah district, Bellary district and Great Indian Peninsula Railway and to Raichur; and of other grain and pulse from Rayapuram to Katpadi, Salem district and Coimbatore district, from Bangalore branch to Madras, North Arcot district, Salem district and Coimbatore district, and from Southern Mahratta Railway to Madras and Bellary district.

Timber.—Larger despatches of timber and firewood to stations on the Kolar Gold Fields Railway.

Cotton, Raw.—Smaller despatches of loose cotton from Cuddapah district to Madras and from Bellary district to Guntakal, and of pressed cotton from Cuddapah district, Bellary district, and Southern Mahratta Railway to Madras.

Sugar.—Smaller despatches of unrefined sugar from North Arcot district, and Southern Mahratta Railway to Madras, and from Bangalore branch and Palghat to Madras and South Indian Railways.

The average sum received for carrying a ton of goods, one mile, amounted to 8·36 pies against 8·46 pies in the previous year.

The goods earnings per goods train mile were Rs. 5·07 against Rs. 5·04.

The following table shows the working expenses of the railway system during 1897 as compared with the previous year:—

Working Expenses.

Head of account.	1896.		1897.		Increase or decrease in amount.	Percentage of increase or decrease.
	Amount. Rs.	Per cent. on gross earnings.	Amount. Rs.	Per cent. on gross earnings.	Rs.	
Maintenance of way, works and stations.	13,00,911	11·72	12,90,151	10 99	— 10,760	— ·83
Locomotive expenses	21,44,808	19·33	21,70,119	18·49	+ 25,311	+ 1·18
Carriage and wagon expenses ..	6,28,565	5·66	6,15,806	5·25	— 12,759	— 2·03
Traffic expenses	8,78,948	7·92	8,45,557	7·21	— 33,391	— 3·89
General charges	5,87,677	5·30	5,80,836	4·95	— 6,841	— 1·16
Special and miscellaneous	97,215	·88	1,19,599	1·01	+ 22,384	+ 23·03
Total ..	56,38,124	50·81	56,22,068	47·90	— 16,056	— ·28

The increase in "Locomotive expenses" was chiefly due to a larger consumption of fuel during the year and also to upkeep of water columns, hydrants, &c., having been transferred to the Locomotive Department, and to the introduction of a more efficient system of cleaning engines.

The decrease in "Traffic expenses" was chiefly due to the original cost of oil lamps now replaced by gas having been charged off in the first half of 1896, also to an additional recovery from Postal Department for gas lighting charges in the year 1897.

The increase under "Special and Miscellaneous Expenditure" was principally owing to commission and stamp duty on debentures renewed together with loss by exchange having been charged this year.

South Indian Railway System, Metre Gauge.

The open mileage of the several sections was as follows:—

South Indian Railway	1,041·59 Miles.
Mayavaram-Mutupet Railway	53·99 ,,
Pondicherry Railway	7·80 ,,
	1,103·38 ,,

The following review includes the transactions of the South Indian and Mayavaram-Mutupet Railways only. The amount received for working the Pondicherry Railway has as usual been taken in reduction of working expenses of the South Indian Railway.

The following table compares the general results of the year's working with those of the previous year:—

General Results.

—	Mean mileage worked.	Train mileage.	Gross earnings. RS.	Working expenses. RS.	Net earnings. RS.	Percentage of working expenses on gross earnings.	Gross earnings per mean mile per week. RS.	Percentage of net earnings on capital outlay including suspense.
1896 ..	1,095·58	3,486,107	91,93,353	50,58,618	41,34,735	55·02	161	5·22
1897 ..	1,095·58	3,628,701	94,47,491	50,21,275	44,26,216	53·15	166	5·59
Increase or decrease..	..	1,42,594	2,54,138	— 37,343	2,91,481	— 1·87	5	0·37
Percentage of increase or decrease..	..	4·09	2·76	— 0·74	7·05	..	3·11	..

Surplus Profits.

The divisible surplus profits of the first half of 1897 on the South Indian Railway proper amounted to Rs. 9,83,491, and those of the second half to Rs. 8,69,711 making up a total of Rs. 18,53,202 as against Rs. 15,68,229 in the previous year.

The net earnings for the year 1897 on the South Indian Railway proper were Rs. 43,14,720 and deducting therefrom the Company's share of surplus profits, charges for guaranteed interest, additional contribution to the Provident Fund (the ordinary contribution to the Fund being a debit to working expenses) and other incidental adjustments, the result was a gain to the State for the year of Rs. 15,15,410 as against Rs. 12,82,073 in the previous year—an improvement of Rs. 2,33,337.

Gross Earnings.

The following table shows the gross earnings under main heads as compared with the previous year :—

Class of earnings.	1896. Rs.	1897. Rs.	Increase or decrease. Rs.
Coaching	49,18,511	51,56,298	2,37,787
Goods	41,46,316	39,88,650	— 1,57,666
Electric telegraph	22,982	22,123	— 859
Sundries	1,05,544	2,80,420	1,74,876
Total ..	91,93,353	94,47,491	2,54,138

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

Year.	First class.		Second class.		Third class.		Total.	
	NO.	RS.	NO.	RS.	NO.	RS.	NO.	RS.
1896	22,110½	71,815	234,740½	1,84,882	13,486,520½	44,17,723	13,743,371½	46,74,420
1897	22,032½	72,612	187,858½	1,79,553	13,763,032½	46,54,220	13,972,923½	49,06,385
Increase or decrease ..	— 78	797	— 46,882	— 5,329	276,512	2,36,497	229,552	2,31,965

The above table shows a net increase of 229,552 in the number of passengers carried and Rs. 2,31,965 in receipts. The increase was due to a general development of coaching traffic and to the Mahamagam festival, which occurs once in 12 years. There was also a temporary suspension of through booking in 1896 owing to the breaching of the line between Coleroon and Vaithisvarankoil between the 1st and 23rd August 1896.

The average sum received for carrying a passenger one mile amounted to 2·06 pies the same as in the previous year.

The coaching earnings per passenger train mile were Rs. 2·56 against Rs. 2·97.

Goods.—The following is a summary of the tonnage of goods lifted and the earnings therefrom as compared with the previous year :—

Class of earnings.	1896.		1897.		Increase or decrease.	
	TONS.	RS.	TONS.	RS.	TONS.	RS.
General merchandise	912,672	39,16,956	933,672	38,01,495	21,000	— 1,15,461
Military stores	111	2,165	110	2,634	— 1	469
Railway materials for construction (Home line only)	81,327	19,980	27,565	10,856	— 53,762	— 9,124
Coal and Coke for the public and foreign railways	15,748	12,271	11,727	17,977	— 4,021	5,706
Coal and Coke for Revenue only ..	41,647	56,010	32,578	39,531	— 9,069	— 16,479
Revenue stores other than Coal and Coke	459,065	1,20,235	436,357	89,481	— 22,708	— 30,754
Live stock	295	3,769	401	6,726	106	2,957
Rents, Miscellaneous, &c.	..	14,930	..	20,026	..	5,096
Total ..	1,510,865	41,46,316	1,442,410	39,88,726	— 68,455	— 1,57,590
Less—Outstandings irrecoverable ..	..	..	..	76	..	76
Total ..	1,510,865	41,46,316	1,442,410	39,88,650	— 68,455	— 1,57,666

The noticeable fluctuations in the traffic under "General Merchandise" are given below :—

Class of goods.	Increase.		Decrease.	
	TONS.	RS.	TONS.	RS.
Cotton, manufactured	1,147	14,428	..	..
Grain and Pulse	8,107	..	..	83,117
Oils	2,053	24,381	..	..
Oil-seeds	..	..	12,803	65,447
Provisions	..	..	4,069	36,059
Railway Plant and Rolling-stock	29,568	69,195	..	..
Spices	3,403	30,143	..	..
Stone and lime	..	..	3,049	17,234
Sugar	..	..	8,459	35,445

Cotton, Manufactured.—The increase principally occurred in piece-goods (European) from Madras and Tuticorin to Madura and in twist and yarn (Indian) exported to China.

Grain and Pulse.—Export of rice in the husk from the Tanjore district was considerably less owing to failure of crops. There was also little demand for this commodity from Madura due to the opening of the Periyár project. The earnings under "Rice not in the husk," however, showed a decided improvement. Large quantities were exported to Colombo, owing to failure of supply from Bengal and Northern India on account of famine existing there.

Oils.—The increase was chiefly in kerosine-oil. Larger quantities were booked from Madras during the year under review owing to a favourable market.

Oil-seeds.—The decrease of tons 12,803 and Rs. 65,447 owing to failure of crops, the import of til or jinjili seeds from Madras, Vellore, Erode, Katpadi and foreign railways to southern districts was considerably less. Excessive rain damaged earthnut crops in Tanjore, Karúr and Tindivanam and Cocanada, and there was consequently a falling off in the export to Pondicherry and Cuddalore.

Provisions.—The decrease was under the head "Others" chiefly in tamarinds from the Pakala-Dharmavaram section to the south. The crop of tamarind was above the average.

Railway Plant and Rolling-stock.—The increase was chiefly in rails, girders and sleepers carried from Rayapuram and Ennur to Gudur, Venkatachallam and Nellore *viâ* Renigunta for the Madras-Bezwada Railway.

Spices.—Increase of tons 3,403 and Rs. 30,143. Nearly Rs. 14,000 of this increase was in chillies due to larger quantities of this traffic booked from the Tinnevelly district where the crop was much above the average and about Rs. 13,000 in betelnuts received from Penang, Singapore and Colombo *viâ* Tuticorin and Negapatam.

Stone and lime.—The decrease was in gravel from Tanjore to Shiyali and Nannilam for the Local Fund Department, and in stone from Tirupati to Gudur and Nellore for the Bezwada-Madras Railway.

Sugar.—The decrease was chiefly under "Sugar unrefined" due to less quantity obtained from Madras for Nellikuppam. In 1896 Messrs. Parry & Co. purchased a large quantity of palmyra jaggery from Cocanada and other East Coast towns at specially cheap rates and railed it from Madras to their factories.

The average sum received for carrying a ton of goods one mile amounted to 8·47 pies against 7·96 pies in the previous year.

The goods earnings per goods train mile were Rs. 2·47 against Rs. 2·26.

The following table shows the working expenses of the Railway during 1897 as compared with the previous year:—

Working Expenses.

Head of account.	1896.		1897.		Increase or decrease in amount.	Increase or decrease in the percentage of expenses on earnings.
	Amount. Rs.	Per cent. on gross earnings.	Amount. Rs.	Per cent. on gross earnings.	Rs.	
Maintenance of way, works and stations.	11,04,462	12·01	11,61,611	12·30	57,149	0·29
Locomotive expenses	18,43,391	20·05	17,65,689	18·69	— 77,702	— 1·36
Carriage and wagon expenses	5,66,362	6·16	5,18,556	5·49	— 47,806	— 0·67
Traffic expenses	7,98,578	8·69	8,47,021	8·96	48,443	0 27
General charges	6,53,584	7·11	6,38,000	6·75	— 15,584	— 0·36
Special and miscellaneous	2,241	1·00	90,398	0·96	— 1,843	— 0·04
Total ..	50,58,618	55·02	50,21,275	53·15	— 37,343	— 1·87

Maintenance of way, works and stations.—The increase was chiefly under the head of Maintenance and renewals of permanent way and has occurred on account of the insertion of the tie bars and renewal with cast iron cushions.

Locomotive expenses.—The decrease was chiefly due to the reduction of expenditure under carriage of revenue stores and to a less number of engines repaired. Coal was obtained at cheaper rates.

Carriage and wagon expenses.—The decrease was due to lighter repairs to vehicles.

Traffic expenses.—The increase was due to general increases having been given to stationmasters and their assistants according to the sanctioned graded scale; and to European stationmasters, platform inspectors, ticket collectors and shunters having been employed at principal stations; also to a large supply of oil and tickets having to be issued to stations early in 1897 on account of the Mahamagam festival.

General Charges.—The decrease was due to the fact that, in 1896, a special debit to working expenses, amounting to Rs. 12,655, was raised on account of the value of medicines on hand in conformity with the decision that the cost of medicines should be charged to Revenue when received instead of being kept in the "Stores Suspense Account" until actually issued.

MADRAS,
27th June 1898.

FRANCIS J. E. SPRING,
Consulting Engineer for Railways.

No. 349 R. Stat.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY STATISTICS.

To

THE JOINT SECRETARY TO THE GOVERNMENT OF MADRAS IN THE PUBLIC WORKS DEPARTMENT (RAILWAY BRANCH).

THE SECRETARY TO THE GOVERNMENT OF BOMBAY IN THE PUBLIC WORKS DEPARTMENT (RAILWAY BRANCH).

THE SECRETARIES TO THE GOVERNMENT OF BENGAL, PUBLIC WORKS, AND MARINE DEPARTMENTS.

THE SECRETARY TO THE GOVERNMENT OF BURMA IN THE PUBLIC WORKS DEPARTMENT (RAILWAY BRANCH).

THE CHIEF COMMISSIONER OF ASSAM, PUBLIC WORKS DEPARTMENT (RAILWAY BRANCH).

THE AGENT TO THE GOVERNOR GENERAL FOR RAJPUTANA, PUBLIC WORKS DEPARTMENT.

THE CONSULTING ENGINEERS TO THE GOVERNMENT OF INDIA FOR RAILWAYS, CALCUTTA, LUCKNOW AND ASSAM.

THE MANAGERS, NORTH WESTERN, OUDH AND ROHILKHAND, EASTERN BENGAL, AND EAST COAST STATE RAILWAYS.

Simla, the 2nd June 1898.

SIR,

With reference to Government of India Circular No. XVIII Railway, dated the 8th November 1893, I am directed to forward a specimen form, and to request that this office may be furnished by the 1st July 1898 with six copies of the narrative memorandum, *printed on one side of the paper*, for open lines of railway on the standard and metre gauges, to aid in the compilation of Part II of the Administration report on Indian railways for 1897-98.

2. In order that the preparation of the report may be facilitated and its issue expedited, I am to request that you will kindly take such steps as will ensure the instructions given in the specimen form being strictly followed in drawing up the memorandum now called for. In this connection, special attention is invited to paragraph 2 of the instructions printed on page 4 of the specimen form, in accordance with which the review for Chapter IV—Details of revenue earnings and expenditure—should be drawn up for *systems* of railways, *including branches worked on the same gauge.*

I have the honour to be,

SIR,

Your most obedient servant,

W. J. McELHINNY, *Captain, R.E.*,
Offg. Under Secretary.

Document accompanying.
Specimen form referred to.

G. C. Press, Simla.—No. 383 P. W. D.—3-6-98—280.

Enclosure to Government of India, Public Works Department, letter No. 349 R. Stat. of 1898.

For Part II of the Administration report on Indian railways.

To reach *Simla* on the 1st July 1898.

NARRATIVE MEMORANDUM.

(For open lines of railway on the standard and metre gauges only.)

SPECIMEN FORM.

CHAPTER I.—STORES.

(For the calendar year ending 31st December 1897.)

For this chapter should be given full information regarding the administration and working of the Stores Department during the Calendar *year 1897. The working of oil-mills in connection with railways, and the results of experiments with any description of stores should be remarked on. Statements should also be furnished for this chapter showing the quantities of the different descriptions of oil consumed, but separate statements should be given for* (1) oil manufactured in railway oil-mills, and (2) oil purchased, etc. The cost or rate should be given in cwts. in all cases. *The following will serve as a general specimen of what is required:*

———*Railway (standard gauge).*

General.

The cost of working the Stores Department, during the year ended the 31st December 1895, was Rs. 1,53,465, as compared with Rs. 1,49,595 in 1894; of the former amount, however, Rs. 12,288 represents the cost, exclusive of supervising charges, of landing and despatching imported store at..... for the Company's use and for the.....and.....railways as compared with Rs. 8,981 on this account in 1894.

There was no alteration in the control of stores and stores depôts.

The purchases of stores in India during 1895 aggregated Rs. 24,49,854, of which Rs. 4,11,306 were on account of English, and Rs. 20,38,548 for country stores. The purchases in 1894 aggregated Rs. 30,66,072.

The following amounts were realised by the sale of surplus and condemned stores, and cinders during 1895, namely,—

	New.	Old.	Total.
	Rs.	Rs.	Rs.
Surplus and condemned stores	...31,798	1,65,811	1,97,609
Cinders	... ...	42,567	42,567

as compared with Rs. 3,22,358 for surplus and condemned stores and Rs. 35,189 for cinders realized in 1894.

Consumption of oil.

The following statement shows the total quantity of oils *manufactured in the railway oil-mills*, etc., at.....during 1895 as compared with the previous year:

DESCRIPTION.	1894.			1895.		
	Total quantity manufactured.	Total quantity of *manufactured* oil consumed.	Average cost per cwt. during 1894.	Total quantity manufactured.	Total quantity of *manufactured* oil consumed.	Average cost per cwt. during 1895.
	Cwt.	Cwt.	Rs. a. p.	Cwt.	Cwt.	Rs. a. p.
Castor oil	14,315	14,300	13 6 9	20,212	20,227	12 11 8
Linseed oil	1,560	1,500	26 10 8	1,105	1,165	22 13 6
Mixed lubricating oil (castor and petroleum in equal parts)	4,680	4,600	9 14 3	5,211	5,291	9 12 11

The decrease in the rate of castor oil was due chiefly to a lower price paid for seed in 1895, *viz.*, Rs. 4-11-7 per cwt. against Rs. 5-3-7 in 1894.

The decrease in the rate of linseed oil was due to a lower price paid for linseed in 1895, *viz.*, Rs. 7-5-2 per cwt. against Rs. 7-12-6 in 1894, and also to a better price realized by the sale of cake during the year under review.

The following statement shows the consumption of oils *purchased*, etc., during 1895, as compared with the previous year :

Description.	1894.			1895.		
	Total quantity purchased.	Total quantity of *purchased* oil consumed.	Rate per cwt. during 1894.	Total quantity purchased.	Total quantity of *purchased* oil consumed.	Rate per cwt. during 1895.
	Cwt.	Cwt.	Rs. a. p.	Cwt.	Cwt.	Rs. a. p.
Castor oil	12,168	12,132	14 6 4	13,180	13,216	13 2 5
Linseed oil	1,260	1,200	27 4 3	2,000	2,060	25 8 0
Mineral oil	462	462	8 10 0	500	500	18 5 0
Kerosine oil	3,600	3,544	8 8 0	4,000	4,056	8 8 0

Chapter II.—Capital.

(For the calendar year ending 31st December 1897.)

For this chapter should be supplied a review of the capital transactions of the railway brought up to the 31st December 1897, with a statement of the individual works on which Rs. 25,000 or more have been expended during the calendar year. A comparison should also be made of interest charges with net earnings; the rate or rates at which interest is calculated being given in all cases. The total capital outlay on final heads of account from the commencement to the end of the year, the amount held in suspense, and the outlay during the year under review should be clearly stated. The following two samples show the nature of the information required in the case of—

(i) Railways for which capital has been raised by companies, and

(ii) State railways and lines constructed by Native states.

Railways for which capital has been raised by companies.

The Secretary of State has advanced £536,000 for the repayment of a portion of the debentures of £788,500 at 3½ per cent. The balance, £252,500, has been renewed for 7 years at the reduced rate of 3¼ per cent. In December 1891 a new debenture loan of £536,000, equal to the amount of debentures repaid, and bearing interest at 3¼ per cent., has been raised and paid into the London treasury. The total capital of the company is not affected by the above noted changes, and at the close of 1891 stands as follows :

	£	£	Rs.
Capital authorized—			
Share capital	...6,250,000		
Debenture bonds	...3,663,500		
		9,913,500	=10,81,47,272
Capital subscribed—			
Share capital	...6,250,000		
Debenture bonds converted into stock ...	...1,300,300		
Debenture bonds at 3¼ per cent. ...	...1,238,500		
Capital not bearing interest ...	... 18,419		
		8,807,219	=9,60,78,748
Capital expenditure—			
On Construction account		...8,491,519	=9,26,34,749
On Stores in suspense		... 289,694	= 31,60,303
On Advances in suspense		... —19,090	=— 2,08,253
		8,762,123	9,55,86,799
Balance available of—			
Capital authorized		... 1,151,377	=1,25,60,473
Capital subscribed		... 45,096	= 4,91,949

The total capital outlay, including Rs. 8,08,405, the State expenditure on the Pátri branch, to 31st December 1891, is distributed as follows :

	Rs.
Main line—Bombay to Sábarmati (including London establishment and other charges)	8,56,78,571
Wadhwán extension—Sábarmati to Wadhwán	42,36,157
Ánand-Godhra branch—Ánand to Godhra	25,82,847
Pátri branch—Viramgam to Khárághoda ... Company's share ...	1,34,171
Pátri branch—Viramgam to Khárághoda ... State share ...	8,08,405
Dhejbara survey	3,003
Total ...	9,34,43,154

The expenditure of the year on final heads amounted to Rs. 5,27,284.

The following are the principal works on which expenditure has been incurred :

	Rs.
Raising the rail-level of Warren girder bridges...	41,695
Improvement of the metre gauge station and yard at Ahmedabad ...	63,450
Construction of an oil-mill building at Sábarmati ... ... Machinery for the oil-mill at Sábarmati	94,439
Additions and alterations to the Parel workshops	25,037
Improved water-supply at certain stations	33,709
Strengthening the Watruck bridge	54,588
New machinery for the locomotive shops at Parel	1,29,644

The following figures show the comparison of interest charges for 1891 with net earnings :

	Rs.
Interest—	
On subscribed capital at 5 per cent.	41,18,345
On debentures at 3½ per cent.	56,063
On debentures at 3¼ per cent.	2,40,153
On overdrawn capital at 3½ per cent.	1,97,863
Total ...	46,12,424
Net earnings of the year *less* contribution to the Provident Fund ...	82,25,120
Excess of net earnings over interest charges	36,12,696

State railways and lines constructed by Native states.

The total capital outlay on final heads of account to the 31st December 1891 has been as follows :

	Rs.
Irrawaddy and Sittang sections	2,97,99,762
Toungoo-Mandalay extension	2,07,41,775
Total ...	5,05,41,537

The amount held in suspense was :

	Rs.
Irrawaddy and Sittang sections	5,74,566
Toungoo-Mandalay extension	6,71,022
Total ...	12,45,588

but the balance against the Toungoo-Mandalay section includes, in addition to the share of the total suspense account of the Burma State railway proper, which is divided in mileage proportion between the two sections, Rs. 2,04,188 of the Mu Valley State railway stores, etc., held in stock for the construction of rolling-stock for that line.

The expenditure of the year on final heads amounted to Rs. 5,72,063 as follows :

	Rs.
Irrawaddy and Sittang sections	3,90,258
Toungoo-Mandalay extension	1,81,805
Total ...	5,72,063

The expenditure was chiefly incurred on the following works:

	Rs.	Rs.
Irrawaddy and Sittang sections—		
Construction of 10 horse boxes	35,865	
Construction of 17 luggage vans	24,560	
		60,425
Provision of siding accommodation for wagons at Rangoon station yard ...		32,753
Provision of siding accommodation at stations in the Irrawaddy district ...		27,850
Alteration to the Kemendine railway station		48,611
Acquisition of the land known as "Old Dhoby lines"		25,000
Toungoo-Mandalay extension—		
Completion of the shore line extension		42,315

The following figures show the comparison of interest charges for 1891 with net earnings:

	Irrawaddy and Sittang sections.	Toungoo-Mandalay extension.
	Rs.	Rs.
Interest on capital at the rate of 4 per cent.	12,12,924	8,48,163
Net earnings of the year *less* contribution to the Provident Fund	15,34,145	8,34,579
Excess of net earnings over interest charges	3,21,221	—13,584

CHAPTER IV.—DETAILS OF REVENUE EARNINGS AND EXPENDITURE.

(For the calendar year ending 31st December 1897.)

In this chapter should be furnished detailed information regarding the revenue earnings and expenditure and the working of the traffic of each railway system *during the* calendar *year 1897. The mileage worked, including that of branches, should be clearly stated, mention should also be made of any lengths opened during the year, the dates of opening being given in each case. The principal causes of variations in the traffic, and in the earnings, should be clearly explained. The working of each department should be briefly reviewed and the causes of increase or decrease in the expenditure explained. Contributions to the Provident Fund should in all cases be included with working expenses. Mention should be made of any important changes introduced during the year in traffic working with an explanation of the objects aimed at, and the results obtained by the changes introduced. Any important changes in rates and fares which have not been mentioned in the narrative memorandum furnished for Part I of the report, should be given at the end of the review.*

2. The review for this chapter should, in the case of railways working foreign lines, include the transactions of the railways worked, e. g., *no separate review of the working of the Bhopal-Itarsi railway is required—the particulars relating to that line should be included with the transactions of the Indian Midland railway. Separate reviews should, however, as far as practicable, be furnished for railways on the standard and metre gauges. The Kaunia-Dharlla (2' 6" gauge) branch should be treated as part of the metre gauge section of the Eastern Bengal State railway.*

3. In the case of guaranteed railways and state lines leased to companies, paragraphs should be added after the table of 'General results' giving the amount of surplus profits earned during each half-year as compared with the previous corresponding half-year.

4. The following is a general specimen of what is required, to which may be added any further particulars that may be thought necessary:

Southern Mahratta Railway system (metre gauge).

The open mileages of the several sections were as follows:

	Miles.
Southern Mahratta railway	1,043·70
Mysore section	296·00
Nanjangúd extension	15·25
Kolhápur railway	29·07
	1,384·02

The mean mileage worked during the year 1891 was 1,361·31 miles against 1,309·22 miles in the previous year. The increase was due to the opening of the following lengths of line:

	Miles.
Nandyál to Cumbum on 15th June 1890	63·18
Ghorpuri to Poona on 4th October 1890	0·91
Tadépalli to Kistna Canal terminus on 27th October 1890	1·80
Miraj to Kolhápur on 21st April 1891	29·07
Mysore to Nanjangúd on 1st December 1891	15·25

The following table shows the general results of the year's working as compared with those of the previous year:

General results.

	Mean mileage worked.	Train-mileage.	Gross earnings.	Working expenses.*	Net earnings.	Percentage of working expenses on gross earnings.	Gross earnings per mean mile worked per week, *excluding steam-boat.*	Percentage of net earnings on total capital outlay, *including steam-boat and suspense.*
	Miles.	Miles.	Rs.	Rs.	Rs.		Rs.	
Previous year ...	1,309·22	2,265,501	56,57,414	44,33,340	12,24,074	78·36	83	1·15
1891	1,361·31	2,453,964	61,43,473	40,69,915	20,73,558	66·25	87	1·86
Increase or decrease	+52·09	+188,463	+4,86,059	—3,63,425	+8,49,484	—12·11	+4	+0·71
Percentage of increase or decrease	+3·98	+8·32	+8·59	—8·20	+69·40	...	+4·82	...

Surplus profits.†

The divisible surplus profits of the first-half of 1891 at the date of the submission of the accounts amounted to Rs.....as against Rs..... in the first-half of the previous year, an improvement of Rs..... . There were no surplus profits in the second-half of 1891, the net earnings amounting to Rs.....having fallen short of the guaranteed interest by Rs.....

After deducting from the net earnings of the year, the Company's moiety of surplus profits, charges for guaranteed interest, contribution to the Provident Fund and interest on overdrawn capital, the net result showed a gain to the State for the year of Rs..... as against a gain of Rs.....in the previous year, an improvement of Rs.....

Gross earnings.

The following table shows the gross earnings under main heads as compared with the previous year:

	Previous year.	1891.	Increase.
	Rs.	Rs.	Rs.
Coaching	24,81,124	26,52,855	1,71,731
Goods	30,73,617	33,44,379	2,70,762
Electric telegraph	23,653	26,459	2,806
Sundries	79,020	1,19,780	40,760
TOTAL ...	56,57,414	61,43,473	4,86,059

Coaching.—The number of passengers of the various classes carried, including troops and police, and season tickets and the earnings therefrom, compare as follow:

	First class.		Second class.		Third class.		Total.	
	No.	Earnings.	No.	Earnings.	No.	Earnings.	No.	Earnings.
		Rs.		Rs.		Rs.		Rs.
Previous year ...	11,491	64,356	32,367	72,558	4,027,108	21,08,428	4,070,966	22,45,342
1891... ...	12,725	76,655	43,015	93,846	4,470,720	22,08,490	4,526,460	23,78,991
Increase ...	1,234	12,299	10,648	21,288	443,612	1,00,062	455,494	1,33,649

The improvement under all classes of passenger traffic may be ascribed generally to the increase in the mean mileage worked, and to the ordinary development of the traffic.

The average sum received for carrying a passenger one mile amounted to 2·44 pies against 2·54 pies in the previous year.

The coaching earnings per passenger train-mile were Rs. 2·50 against Rs. 2·42.

* Includes contribution to the Provident Fund.

† To be given in the case of guaranteed railways, and state lines leased to companies.

Goods.—The following is a summary of the tonnage of goods lifted and the earnings therefrom, as compared with the previous year:

	Previous year.		1891.		Increase or decrease.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
General merchandise ...	489,025	27,18,298	584,692	30,21,874	+95,667	+3,03,576
Military stores	981	12,072	987	12,145	+6	+73
Railway materials for construction (Home line only).	24,743	76,382	28,676	58,059	+3,933	−18,323
Coal and coke for the public and foreign railways.	1,490	5,165	1,235	3,174	−255	−1,991
Coal and coke for construction (Home line only).	10	41	4	12	−6	−29
Coal and coke for revenue only ...	8,908	26,663	11,913	41,545	+3,005	14,882
Revenue stores other than coal and coke.	127,516	2,20,702	124,743	1,93,459	−2,773	−27,243
Live-stock	96	2,242	115	3,183	+19	+941
Rents, miscellaneous, etc. ...	...	12,052	...	10,928	...	−1,124
TOTAL ...	652,769	30,73,617	752,365	33,44,379	+99,596	+2,70,762

The noticeable fluctuations of traffic under "General merchandise" are noted below:

	Increase. Tons.	Increase. Rs.
Cotton, raw	5,602	31,184
Dyes and tans	2,700	19,822
Grains	37,157	82,523
Oils	1,816	16,799
Railway plant, etc.	45,794	67,983
Salt	3,917	47,046
Spices	5,233	55,074
Sugar	Decrease 4,277	Decrease 35,857

The above variations were principally due to the following causes:

Cotton, raw.—The increase was due to increased export *viâ* the Portuguese frontier during the months of August, September and October.

Dyes and tans.—The increase under this head was due to a larger traffic in turmeric.

Grains.—The increase was due to the great demand in Europe for wheat during the first-half of the year, and to heavy imports of food-grains during the second-half to meet the scarcity prevailing in the districts served by the Southern Mahratta railway.

Oils.—The increase under this head was the result of improved traffic in kerosine oil imported *viâ* Poona junction.

Railway plant, etc.—The increase was principally due to long leads of heavy consignments of machinery, etc., from the Portuguese frontier to Guntakal, Kistna Canal terminus, and Subedar's Chutram stations for the South Indian, East Coast, and Bangalore-Hindupur railways which are in course of construction.

Salt.—Owing to favourable rates and other circumstances, a large development of the traffic in salt imported from Goa and from Bombay *viâ* Mormugao occurred during the year 1891. The importation *viâ* the Portuguese frontier in 1891 amounted to 15,000 tons, with earnings of Rs. 96,000, or an increase of 8,000 tons and Rs. 43,000 over the previous year.

Spices.—The increase was chiefly due to the expansion of traffic at Byadgi station in betel-nuts and chillies, which rose from Rs. 8,500 in 1890 to Rs. 32,000 in 1891.

Sugar.—The decrease was due to the failure of the sugarcane crops for want of seasonable rain in the neighbourhood of Harihar, Nandyál, Bellary, Bagalkot, Khanapur, and Miraj stations.

The average sum received for carrying a ton of goods one mile amounted to 8·37 pies against 8·74 pies in the previous year.

The goods earnings per goods train-mile were Rs. 2·40 against Rs. 2·47.

Working expenses.

The following table shows the working expenses of the railway system during 1891 as compared with the previous year:

	Previous year.		1891.		Increase or decrease in amount.	Increase or decrease in the percentage of expenses on earnings.
	Amount.	Per cent. on gross earnings.	Amount.	Per cent. on gross earnings.		
	Rs.		Rs.		Rs.	
Maintenance of way, works and stations ...	15,17,023	26·81	9,43,314	15·35	−5,73,709	−11·46
Locomotive expenses	12,70,236	22·45	13,52,663	22·02	+82,427	−0·43
Carriage and wagon expenses	2,26,381	4·00	2,95,413	4·81	+69,032	+0·81
Traffic expenses	6,46,768	11·43	7,09,554	11·55	+62,786	+0·12
General charges	7,22,202	12·77	7,21,540	11·75	−662	−1·02
Special and Miscellaneous expenditure ...	50,730	0·90	47,431	0·77	−3,299	−0·13
TOTAL ...	44,33,340	78·36	40,69,915	66·25	−3,63,425	−12·11

The decrease under "Maintenance of way, works and stations" was chiefly due to the absence of special outlay on renewals of sleepers, and to a reduction in the expenditure on ballasting, the banks of the several sections having now settled. The expenditure in 1890 on repairs to bridges, earthwork, etc., was also abnormally high owing to the rebuilding of the abutments of the Hebballa bridge, and to the substitution of girders for certain arches in the Tungabadra bridge at Harihar.

The increase in the "Locomotive expenses" was principally due to the additional train-mileage run, and to the heavy expenditure on repairs of engines and machinery.

The increase in the "Carriage and wagon expenses" was due to the execution of extensive repairs to stock damaged at an accident, and to the fitting of new doors to several covered goods wagons in order to make them water-tight.

The increase in the "Traffic expenses" is accounted for by the opening of the Nandyál-Cumbum section, the Kolhápur railway and the Nanjangúd extension; also to the inclusion for the first time of the Poona joint station expenses debitable to the Southern Mahratta Railway Company.

Traffic working.

From the.....a through mixed train was run between ..... and .....which was necessary for the increased number of passengers, and to enable goods to reach ..... more expeditiously.

An out-agency was opened at ..... on the..... with satisfactory results.

The working of the cash and pay departments has been let on contract from the 1st April on a fixed payment of Rs. ....per mensem, resulting in a monthly saving of about Rs. .....

A ferry service was opened between.....and ..... on the ..... The net earnings realized from the date of opening to the 31st December were Rs. ..... This ferry is capable of crossing loaded goods vehicles; the average number of vehicles crossed in one day being 25.

Rates and fares.

Any important changes in rates and fares which have not been mentioned in the narrative memorandum furnished for Part I of the report, should be given here.

1898.

	First half	Second half
Net Earnings — — —	31.56.889	23.45.016
Deduct		
Guaranteed interest —	29.06.903	29.06.701
Interest on overdrawn Capl.	393	2.955
Contribution to Pen: Institution	48.863	40.385
Coy's share of Surplus Profits	80.680	—
Interest on debentures for Calicut Cannanore Extn	19.637	18.916
	30.56.476	29.68.957
	1.00.413	6.23.941
Net loss —		5.23.528.

Form No. 21.

OFFICE OF THE CONSULTING ENGINEER FOR RAILWAYS,

Madras, 8 June 1899

EXAMINED
Regr. No. 326
8 JUN. 1899
Enclosures
RAILWAY ACCOUNTS, MADRAS

OFFICE NOTE.

From E. R. No. 1796.

To C. R

Part II Administration report
Chap II Capital

I do not understand the para at bottom of page 3 beginning "The divisible surplus profits ..... how can I get the figures to agree.

You say that during the second half of the year there was a net loss to the state of Rs 6,20,985 & that in the first half the divisible surplus profits amounted to 1,61,359 of these half belong to the state I therefore infer that the net loss to the state is 6,20,985 $- \frac{1,61,359}{2} = 5,40,305$. A

Turning over the page I find that the net loss to the state is Rs 5,23,528 arrived at by taking excess of interest charges B.

over net earnings = Rs 4,42,848 +
company's share of surplus profits Rs 80,680.

Turning now to Chap IV Revenue.
I find that you give the net loss to
the State as Rs 5,40,305 (A) the very
figure which I adduced from the
figures you quoted in the Chap on Capital.
The only amount which you have taken
into account in the Chap on Revenue
not dealt with in the Chap on Capital
is the interest on debentures for the
Cadicut - Cannanore extension. I am
therefore led to believe that the difference
between the two amounts A & B represents
this interest viz 5,40,305 — 5,23,528 = 16,777.
Reading the Revenue note, however, I find that
the interest due on these debentures is given
as Rs 19,637.
Similarly taking Net earnings.
Total Net Earnings given unda Revenue = 56,02,515
Net earnings less Provident contribution
given under Capital = 54,12,657
~~Thus~~ ∴ Contribution to Provident Institution = 1,89,858
But from the half-yearly Cap & Rev
accounts of the Madras Railway
I gather that the contribution to
the Provident Institution is Rs 89,248.
These figures will show how puzzling these
accounts are to a man not up in
the subject & may enable you to
revise the wording so as to give
outsiders a clearer insight into the figures.

JGH 6/6/99.

I obtained the very large difference which appears under Capital & Revenue in the S.V. R accounts is due to the price paid by the State for the line exceeding the cost of construction of the line. This I am not clear about & a brief explanation in the Administration Report would be useful.

G.A.

Rec'd 9.6.99 5.5 pm

A.R.

The proof may be approved
JGH
12.6.99.

EXAMINER & C.
Regr. No. 326
14 JUN 1899
Enclosures
ACCOUNTS, MADRAS

No. 1879 dt 14.6.99.

C.R.
It is not clear why the interest charges incurred by the State exceed the interest charges under the terms of the contract
JGH 12.6.99.

E.R.

The para. at foot of page 3 gives the Surplus Profits passed for division, but as in arriving at this certain adjustments are first made, & (Vide the Surplus Profits Statement) half this sum does not represent the true gain to Govt.

The loss during the second half is as shown in the accounts and is exclusive of interest on overdrawn Capital which is brought into the accounts only when a Surplus profit Statement is prepared.

The true loss to Govt: is that given at top of page 4. vide Statement attached.

I have altered the para on page 3 to make this clear.

The figure (5,40,305) given in chapter IV page 6 is incorrect. It was furnished by the Company and not by this office. Had the information supplied by the Coy: been sent to this office for check, this would have been pointed out.

The net earnings given in Chap: IV page 5 are those of the entire System (Madras, Kolar Gold Fields and Madras Ennore Railways) while those included under Capital refer to the Madras Railway proper only.

I dont quite follow your remarks regarding the South Indian Railway.

JGH 9/6/99
C.R.
9.6.99.

17/6/99

E. R.

The difference is due to the following:-

Under the terms of the contract the company's capital of £1,000,000 is taken at Rs 14 to the £, and interest calculated accordingly, and interest on the Secretary of State's Capital is calculated at 3 per cent, whereas in calculating interest actually incurred by the State (See S. O. M., Chap: XVIII, Para 20,) English charges, including interest on Company's Capital, are converted at the "prescribed rate" i. e. the average for the preceding half year, and interest on Indian outlay subsequent to 1890 is calculated at 4 per cent.

I don't think it necessary that this explanation should be given in the administration report. An enquirer can always ascertain the cause of the difference by a reference to the contract.

JW 16/6/99

Forwarded to the Madras Office for ~~disposal~~ necessary action.

DAR
9-6-99.

Spare copies to be prepared.

2676

Copies sent to

9.

2676

Public Works (1899) Department.

P. W. Ry.

CURRENT No. 760.

From Secretary of India

Order

No. 35-2 R.-S.

Dated 2nd June 1899

Received 9th do

Registered —— do ——

Enclosures

Spare copies

SUBJECT.

Performa for Part II of the Annual report on Indian Railways.

Forwarding a specimen form & requesting to be supplied with six copies of the narrative memorandum furnishing ——— for 1898-99, so as to reach the Office soon after 1st July 99.

To Public Works Department (Railway Branch).

BACK PAPERS.

No.	Date.

FURTHER P[illegible]

No.	Date.

JOINT SECRETARY TO
RECEIVED
9 - JUN. 1899
GOVT. OF MADRAS RYS.

No. 352 R. Stat.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY STATISTICS.

To

THE JOINT SECRETARY TO THE GOVERNMENT OF MADRAS IN THE PUBLIC WORKS DEPARTMENT (RAILWAY BRANCH).

THE SECRETARY TO THE GOVERNMENT OF BOMBAY IN THE PUBLIC WORKS DEPARTMENT (RAILWAY BRANCH).

THE SECRETARIES TO THE GOVERNMENT OF BENGAL, PUBLIC WORKS AND MARINE DEPARTMENTS.

THE SECRETARY TO THE GOVERNMENT OF BURMA IN THE PUBLIC WORKS DEPARTMENT (RAILWAY BRANCH).

THE CHIEF COMMISSIONER OF ASSAM, PUBLIC WORKS DEPARTMENT (RAILWAY BRANCH).

THE AGENT TO THE GOVERNOR GENERAL FOR RAJPUTANA, PUBLIC WORKS DEPARTMENT.

THE CONSULTING ENGINEERS TO THE GOVERNMENT OF INDIA FOR RAILWAYS, CALCUTTA, LUCKNOW AND ASSAM.

THE MANAGERS, NORTH WESTERN, OUDH AND ROHILKHAND, EASTERN BENGAL AND EAST COAST STATE RAILWAYS.

Simla, the 2nd June 1899.

SIR,

With reference to Government of India Circular No. XVIII Railway, dated the 8th November 1893, I am directed to forward a specimen form, and to request that this office may be furnished, *as soon as possible* after the 1st July 1899, with six copies of the narrative memorandum, *printed on one side of the paper*, for open lines of railway on the standard and metre gauges, to aid in the compilation of Part II of the Administration report on Indian railways for 1898-99.

2. In order that the preparation of the report may be facilitated and its issue expedited, I am to request that you will kindly take such steps as will ensure the instructions given in the specimen form being strictly followed in drawing up the memorandum now called for. In this connection, special attention is invited to paragraph 2 of the instructions printed on page 4 of the specimen form, in accordance with which the review for Chapter IV—Details of revenue earnings and expenditure—should be drawn up for *systems* of railways, *including branches worked on the same gauge.*

I have the honour to be,

SIR,

Your most obedient servant,

Wm. McGillivray *Captain, R. E.,*

Offg. Under Secretary to the Govt. of India.

Documents accompanying
Specimen form referred to.

G. C. Press, Simla.—No. 462 P. W. D.—3-6-99—280.

To The Joint Secretary to the Government of Madras Public Works Department (Railway Branch).

Enclosure to Government of India, Public Works Department, letter No. 352 R. Stat. of 1899.

For Part II of the Administration report on Indian railways.

To reach *Simla as soon as possible* after the 1st July 1899.

NARRATIVE MEMORANDUM.

(For open lines of railway on the standard and metre gauges only.)

SPECIMEN FORM.

CHAPTER I.—STORES.

(For the calendar year ending 31st December 1898.)

For this chapter should be given full information regarding the administration and working of the Stores Department during the Calendar *year 1898. The working of oil-mills in connection with railways, and the results of experiments with any description of stores should be remarked on. Statements should also be furnished for this chapter showing the quantities of the different descriptions of oil consumed, but separate statements should be given for* (1) oil manufactured in railway oil-mills, and (2) oil purchased, etc. The cost or rate should be given in cwts. in all cases. *The following will serve as a general specimen of what is required:*

——— ——— *Railway (standard gauge).*

General.

The cost of working the Stores Department, during the year ended the 31st December 1895, was Rs. 1,53,465, as compared with Rs. 1,49,595 in 1894; of the former amount, however, Rs. 12,288 represents the cost, exclusive of supervising charges, of landing and despatching imported store at.....for the Company's use and for the ..... and.....railways as compared with Rs. 8,981 on this account in 1894.

There was no alteration in the control of stores and stores depôts.

The purchases of stores in India during 1895, aggregated Rs. 24,49,854, of which Rs. 4,11,306 were on account of English, and Rs. 20,38,548 for country stores. The purchases in 1894 aggregated Rs. 30,66,072.

The following amounts were realised by the sale of surplus and condemned stores, and cinders during 1895, namely,—

	New.	Old.	Total.
	Rs.	Rs.	Rs.
Surplus and condemned stores	31,798	1,65,811	1,97,609
Cinders		42,567	42,567

as compared with Rs. 3,22,358 for surplus and condemned stores and Rs. 35,189 for cinders realized in 1894.

Consumption of oil.

The following statement shows the total quantity of oils *manufactured in the railway oil-mills*, etc., at..... ...during 1895 as compared with the previous year:

DISCRIPTION.	1894.			1895.		
	Total quantity manufactured.	Total quantity of *manufactured* oil consumed.	Average cost per cwt. during 1894.	Total quantity manufactured.	Total quantity of *manufactured* oil consumed.	Average cost per cwt. during 1895.
	Cwt.	Cwt.	Rs. a p.	Cwt.	Cwt.	Rs. a. p.
Castor oil	14,315	14,300	13 6 9	20,212	20,227	12 11 8
Linseed oil	1,560	1,500	26 10 8	1,105	1,165	22 13 6
Mixed lubricating oil (castor and petroleum in equal parts)	4,680	4,600	9 14 3	5,211	5,291	9 12 11

The decrease in the rate of castor oil was due chiefly to a lower price paid for seed in 1895, *viz.*, Rs. 4-11-7 per cwt. against Rs. 5-3-7 in 1894

The decrease in the rate of linseed oil was due to a lower price paid for linseed in 1895, *viz.*, Rs. 7-5-2 per cwt. against Rs. 7-12-6 in 1894, and also to a better price realized by the sale of cake during the year under review.

The following statement shows the consumption of oils *purchased*, etc., during 1895, as compared with the previous year:

Description.	1894.			1895.		
	Total quantity purchased.	Total quantity of *purchased* oil consumed.	Rate per cwt. during 1894.	Total quantity purchased.	Total quantity of *purchased* oil consumed.	Rate per cwt. during 1895.
	Cwt.	Cwt.	Rs. a. p.	Cwt.	Cwt.	Rs. a. p.
Costor oil	12,168	12,132	14 6 4	13,180	13,216	13 2 5
Linseed oil ...	1,260	1,200	27 4 3	2,000	2,060	25 8 0
Mineral oil ...	462	462	8 10 0	500	500	18 5 0
Kerosine oil ...	3,600	3,544	8 8 0	4,000	4,056	8 8 0

Chapter II.—Capital.

(For the calendar year ending 31st December 1898.)

For this chapter should be supplied a review of the capital transactions of the railway brought up to the 31st December 1898, with a statement of the individual works on which Rs. 25,000 or more have been expended during the calendar year. A comparison should also be made of interest charges with net earnings; the rate or rates at which interest is calculated being given in all cases. The total capital outlay on final heads of account from the commencement to the end of the year, the amount held in suspense, and the outlay during the year under review should be clearly stated. The following two samples show the nature of the information required in the case of—

(i) Railways for which capital has been raised by companies, and
(ii) State railways and lines constructed by Native states.

Railways for which capital has been raised by companies.

The Secretary of State has advanced £536,000 for the repayment of a portion of the debentures of £788,500 at 3½ per cent. The balance, £252,500 has been renewed for 7 years at the reduced rate of 3¼ per cent. In December 1891 a new debenture loan of £536,000, equal to the amount of debentures repaid, and bearing interest at 3¼ per cent., has been raised and paid into the London Treasury. The total capital of the company is not affected by the above noted changes, and at the close of 1891 stands as follows:

	£	£	Rs.
Capital authorized—			
Share capital	...6,250,000		
Debenture bonds	...3,663,500		
		9,913,500	=10,81,47,272
Capital subscribed—			
Share capital	...6,250,000		
Debenture bonds converted into stock	...1,300,300		
Debenture bonds at 3¼ per cent. ...	...1,238,500		
Capital not bearing interest ...	... 18,419		
		8,807,219	=9,60,78,748
Capital expenditure—			
On Construction account		...8,491,519	=9,26,34,749
On Stores in suspense		... 289,634	= 31,60,303
On Advances in suspense		... —19,090	= —2,08,253
		8,762,123	=9,55,86,799
Balance available of—			
Capital authorised		...1,151,377	=1,25,60,473
Capital subscribed		... 45,096	= 4,91,949

The tolal capital outlay, including Rs. 8,08.405, the State expenditure on the Pátri branch, to 31st December 1891, is distributed as follows:

	Rs.
Main line—Bombay to Sábarmati (including London establishment and other charges)	8,56,78.571
Wadhwán extension—Sábarmati to Wadhwán	42,36,157
Ánand-Godhra branch—Ánand to Godhra	25,82,847
Pátri branch—Viramgam to Khárághoda ... Company's share ...	1,34,171
Pátri branch—Viramgam to Khárághoda ... State share ...	8,08,405
Dhejbara survey	3,003
Total ...	9,34,43,154

The expenditure of the year on final heads amounted to Rs. 5,27,284.

The following are the principal works on which expenditure has been incurred:

	Rs.
Raising the rail-level of Warren girder bridges	41,695
Improvement of the metre gauge station and yard at Ahmedabad ...	63,450
Construction of an oil-mill building at Sábarmati ... ... Machinery for the oil-mill at Sábarmati	94,439
Additions and alterations to the Parel workshops	25,037
Improved water-supply at certain stations	33,709
Strengthening the Watruck bridge	54,588
New machinery for the locomotive shops at Parel	1,29,644

The following figures show the comparison of interest charges for 1891 with net earnings:

Interest—	Rs.
On subscribed capital at 5 per cent.	41,18,345
On debentures at 3½ per cent.	56,063
On debentures at 3¼ per cent.	2,40,153
On overdrawn capital at 3½ per cent.	1,97,863
Total ...	46,12,424
Net earnings of the year *less* contribution to the Provident Fund ...	82,25,120
Excess of net earnings over interest charges	36,12,696

State railways and lines constructed by Native states.

The total capital outlay on final heads of account to the 31st December 1891 has been as follows:

	Rs.
Irrawaddy and Sittang sections	2,97,99,762
Toungoo-Mandalay extension	2,07,41,775
Total ...	5,05,41,537

The amount held in suspense was:

	Rs.
Irrawaddy and Sittang sections	5,74,566
Toungoo-Mandalay extension	6,71,022
Total ...	12,45,588

but the balance against the Toungoo-Mandalay section includes, in addition to the share of the total suspense account of the Burma State railway proper, which is divided in mileage proportion between the two sections, Rs. 2,04,188 of the Mu Valley State railway stores, etc., held in stock for the construction of rolling-stock for that line.

The expenditure of the year on final heads amounted to Rs. 5,72,063 as follows:

	Rs.
Irrawaddy and Sittang sections	3,90,258
Toungoo-Mandalay extension	1,81,805
Total ...	5,72,063

The expenditure was chiefly incurred on the following works :

Irrawaddy and Sittang Sections—

	Rs.	Rs.
Construction of 10 horse boxes	35,865	
Construction of 17 luggage vans	24,560	
		60,425
Provision of siding accommodation for wagons at Rangoon station yard ...		32,753
Provision of siding accommodation at stations in the Irrawadi district ...		27,850
Alteration to the Kemendine railway station		48,611
Acquisition of the land known as "Old Dhoby lines"		25,000
Toungoo-Mandalay extension—		
Completion of the shore line extension		42,315

The following figures show the comparison of interest charges for 1891 with net earnings :

	Irrawadi and Sittang sections. Rs.	Toungoo-Mandalay extension. Rs.
Interest on capital at the rate of 4 per cent.	12,12,924	8,48,163
Net earnings of the year less contribution to the Provident Fund ...	15,34,145	8,34,579
Excess of net earnings over interest charges	3,21,221	—13,584

CHAPTER IV.—DETAILS OF REVENUE EARNINGS AND EXPENDITURE.

(For the calendar year ending 31st December 1898.)

In this chapter should be furnished detailed information regarding the revenue earnings and expenditure and the working of the traffic of each **Railway system** *during the* **calendar** *year 1898. The mileage worked, including that of branches should be clearly stated, mention should also be made of any lengths opened during the year, the dates of opening being given in each case. The principal causes of variations in the traffic, and in the earnings, should be clearly explained. The working of each department should be briefly reviewed and the causes of increase or decrease in the expenditure explained. Contributions to the Provident Fund should in all cases be included with working expenses. Mention should be made of any important changes introduced during the year in traffic working with an explanation of the objects aimed at, and the results obtained by the changes introduced. Any important changes in rates and fares which have not been mentioned in the narrative memorandum furnished for Part I of the report, should be given at the end of the review.*

2. The review for this chapter should, in the case of railways working foreign lines, include the transactions of the railways worked, e. g., *no separate review of the working of the Bhopal-Itársi railway is required—the particulars relating to that line should be included with the transactions of the Indian Midland railway. Separate reviews should, however, as far as practicable, be furnished for railways on the standard and metre gauges. The Kaunia-Dharlla (2' 6" gauge) branch should be treated as part of the metre gauge section of the Eastern Bengal State railway.*

3. In the case of guaranteed railways and state lines leased to companies paragraphs should be added after the table of 'General results' giving the amount of surplus profits earned during each half-year as compared with the previous corresponding half year.

4. The following is a general specimen of what is required, to which may be added any further particulars that may be thought necessary :

Southern Mahratta Railway system (metre gauge.)

The open mileages of the several sections were as follows :

	Miles.
Southern Mahratta railway	1,043·70
Mysore section	296·00
Nanjangúd extension	15·25
Kolhápur railway	29·07
	1,384·02

The mean mileage worked during the year 1891 was 1,361·31 miles against 1,309·22 miles in the previous year. The increase was due to the opening of the following lengths of line.

	Miles
Nandyál to Cumbum on 15th June 1890	63·18
Ghorpuri to Poona on 4th October 1890	0·91
Tadêpalli to Kistna Canal terminus on 27th October 1890	1·80
Miraj to Kolhápur on 21st April 1891	29·07
Mysore to Nanjangúd on 1st December 1891	15·25

The following table shows the general results of the year's working as compared with those of the previous year :

General results.

	Mean mileage worked.	Train mileage.	Gross earnings.	Working expenses.*	Net earnings.	Percentage of working expenses on gross earnings.	Gross earnings per mean mile worked per week *excluding steam boat.*	Percentage of net earnings on total capital outlay, *including steam boat and suspense*
	Miles.	Miles.	Rs.	Rs.	Rs.		Rs.	
Previous year ...	1,309·22	2,265,501	56,57,414	44,33,340	12,24,074	78·36	83	1·15
1891	1,361·31	2,453,964	61,43,473	40,69,915	20,73,558	66·25	87	1·86
Increase or decrease	+52·09	+188,463	+4,86,059	−3,63,425	+8,49,484	−12·11	+4	+0·71
Percentage of increase or decrease	+3·98	+8·32	+8·59	−8·20	+69·40	...	+4·82	...

Surplus profits †

The divisible surplus profits of the first-half of 1891 at the date of the submission of the accounts amounted to Rs..... as against Rs. ..... in the first-half of the previous year, an improvement of Rs..... . There were no surplus profits in the second-half of 1891, the net earnings amounting to Rs. .....having fallen short of the guaranteed interest by Rs. . .....

After deducting from the net earnings of the year, the Company's moiety of surplus profits, charges for guaranteed interest, contribution to the Provident Fund and interest on overdrawn capital, the net result showed a gain to the State for the year of Rs..... as against a gain of Rs. .....in the previous year, an improvement of Rs. .....

The following table shows the gross earnings under main heads as compared with the previous year :

Gross earnings.

	Previous year.	1891.	Increase.
	Rs.	Rs.	Rs.
Coaching	24,81,124	26,52,855	1,71,731
Goods	30,73,617	33,44,379	2,70,762
Electric telegraph	23,653	20,459	2,806
Sundries	79,020	1,19,730	40,708
TOTAL ...	56,57,414	61,43,473	4,80,059

Coaching.—The number of passengers of the various classes carried, including troops and police, and season tickets and the earnings therefrom, compare as follow :

	First class.		Second class.		Third class.		Total.	
	No.	Earnings.	No.	Earnings	No.	Earnings.	No.	Earnings.
		Rs.		Rs.		Rs.		Rs.
Previous year ...	11,491	64,356	32,367	72,558	4,027,108	21,08,428	4,070,966	22,45,342
1891	12,725	76,655	43,015	93,846	4,470,720	22,08,490	4,526,460	23,78,991
Increase ...	1,234	12,299	10,648	21,288	443,612	1,00,062	455,494	1,33,649

The improvement under all classes of passenger traffic may be ascribed generally to the increase in the mean mileage worked, and to the ordinary development of the traffic.

The average sum received for carrying a passenger one mile amounted to 2·44 pies against 2·54 pies in the previous year.

The coaching earnings per passenger train-mile were Rs. 2·50 against Rs 2·42.

* Includes contribution to the Provident Fund.
† To be given in the case of guaranteed railways and State lines leased to companies.

Goods.—The following is a summary of the tonnage of goods lifted and the earnings therefrom, as compared with the previous year:

	Previous year.		1891.		Increase or decrease.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
General merchandise	489,025	27,18,298	584,692	30,21,874	+95,667	+3,03,576
Military stores	981	12,072	987	12,145	+6	+73
Railway material for construction (Home line only).	24,743	70,382	28,676	58,059	+3,933	−18,323
Coal and coke for the public and foreign railways.	1,490	5,165	1,235	3,174	−255	−1,991
Coal and coke for construction (Home line only).	10	41	4	12	−6	−29
Coal and coke for revenue only ...	8,908	26,663	11,913	41,545	+3,005	+14,882
Revenue stores other than coal and coke.	127,516	2,20,702	124,743	1,93,459	−2,773	−27,243
Live-stock	56	2,242	115	3,183	+19	+941
Rents, miscellaneous, etc. ...	...	12,052	...	10,928	...	−1,124
TOTAL ...	652,736	30,73,617	752,365	33,44,379	+99,596	+2,70,762

The noticeable fluctuations of traffic under "General merchandise" are noted below:

	Increase. Tons.	Increase. Rs.
Cotton, raw	5,602	31,184
Dyes and tans	2,700	19,822
Grains	37,157	82,523
Oils	1,816	16,799
Railway plant, etc.	45,794	67,983
Salt	5,223	55,074
Spices	3,917	47,046
	Decrease.	Decrease.
Sugar	4,277	35,857

The above variations were principally due to the following causes:

Cotton, raw.—The increase was due to increased export *viâ* the Portuguese frontier during the months of August, September and October.

Dyes and tans.—The increase under this head was due to a larger traffic in turmeric.

Grains.—The increase was due to the great demand in Europe for wheat during the first-half of the year, and to heavy imports of food-grains during the second-half to meet the scarcity prevailing in the districts served by the Southern Mahratta railway.

Oils.—The increase under this head was the result of improved traffic in kerosine oil imported *viâ* Poona junction.

Railway plant, etc.—The increase was principally due to long leads of heavy consignments of machinery, etc., from the Portuguese frontier to Guntakal, Kistna Canal terminus, and Subedar's Churram stations for the South Indian, East Coast, and Bangalore-Hindupur railways which are in course of construction.

Salt.—Owing to favourable rates and other circumstances, a large development of the traffic in salt imported from Goa and from Bombay *viâ* Mormugao occurred during the year 1891. The importation *viâ* the Portuguese frontier in 1891 amounted to 15,000 tons, with earnings of Rs. 96,000 or an increase of 8,000 tons and Rs. 43,000 over the previous year.

Spices.—The increase was chiefly due to the expansion of traffic at Byadgi station in betel-nuts and chillies, which rose from Rs. 8,500 in 1890 to Rs. 32,000 in 1891.

Sugar.—The decrease was due to the failure of the sugarcane crops for want of seasonable rain in the neighbourhood of Harihar, Nandyál, Bellary, Bagalkot, Khanapur, and Miraj stations.

The average sum received for carrying a ton of goods one mile amounted to 8·37 pies against 8·74 pies in the previous year.

The goods earnings per goods train-mile were Rs. 2·40 against Rs. 2·47.

Working expenses.

The following table shows the working expenses of the railway system during 1891 as compared with the previous year:

	Previous year.		1891.		Increare or decrease in amount.	Increase or decrease in the percentage of expenses on earnings.
	Amount.	Per cent. on gross earnings.	Amount.	Percent. on gross earnings.		
	Rs.		Rs.		Rs.	
Maintenance of way, works and stations.	15,17,023	26·81	9,43,314	15·35	−5,73,709	−11·46
Locomotive expenses ...	12,70,236	22·45	13,52,663	22·02	+82,427	−0·43
Carriage and wagon expenses	2,26,381	4·00	2,95,413	4·81	+69,032	+0·81
Traffic expenses	6,46,768	11·43	7,09,554	11·55	+62,786	+0·12
General charges	7,22,202	12·77	7,21,540	11·75	−662	−1·02
Special and Miscellaneous expenditure.	50,730	0·90	47,431	0·77	−3,299	−0·13
TOTAL ...	44,33,340	78·36	40,69,915	66·25	−3,63,425	−12·11

The decrease under "Maintenance of way, works and stations" was chiefly due to the absence of special outlay on renewals of sleepers, and to a reduction in the expenditure on ballasting, the banks of the several sections having now settled. The expenditure in 1890 on repairs to bridges, earthwork, etc., was also abnormally high owing to the rebuilding of the abutments of the Hebballa bridge, and to the substitution of girders for certain arches in the Tungabadra bridge at Harihar.

The increase in the "Locomotive expenses" was principally due to the additional train-mileage run, and to the heavy expenditure on repairs of engines and machinery.

The increase in the "Carriage and wagon expenses" was due to the execution of extensive repairs to stock damaged at an accident, and to the fitting of new doors to several covered goods wagons in order to make them water-tight.

The increase in the "Traffic expenses" is accounted for by the opening of the Nandyál-Cumbum section, the Kolhápur railway and the Nanjangúd extension; also to the inclusion for the first time of the Poona joint station expenses debitable to the Southern Mahratta Railway Company.

Rates and fares.

Any important changes in rates and fares which have not been mentioned in the narrative memorandum furnished for Part I of the report, should be given here.

G. C. Press, Simla.—No. 462 P. W. D.—3-6-99.—280.

DR. Foreseen if the draft letter & narrative memorandum may be sent to 'R' for perusal before despatch.

30/6/99

No
12.

R. Form No. 12.

No. 720. Ry

Government of Madras.

PUBLIC WORKS DEPARTMENT,

RAILWAY BRANCH.

To

The Secy. to the Govt. of India,

P. W. Department.

Ooty, the 1st July 1899.

Sir,

With reference to your letter No. 352 R. Stat. of 2nd June 1899, I am directed to forward herewith six copies of the Narrative Memorandum for Part II of the Administration report on Railways for 1898-99 relating to Railways under the control of the Madras Govt.

J.H. 30.6.99.

Despatched on 1/7/99

Document accompg:
6 copies of the Narrative
Memorandum referred to.

J.H. 1/7/99