

# REPORT

TO

THE SECRETARY OF STATE FOR INDIA IN COUNCIL

ON

## RAILWAYS IN INDIA,

FOR THE YEAR

1868-69.

BY JULAND DANVERS, ESQ.,

GOVERNMENT DIRECTOR OF THE INDIAN RAILWAY COMPANIES.

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Presented to both Houses of Parliament by Command of Her Majesty.

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FOR HER MAJESTY'S STATIONERY OFFICE.

1869.

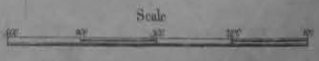
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MAP OF  
**INDIA**  
 SHEWING THE LINES OF RAILWAY  
 IN THE YEAR 1869



Railways completed thus ———  
 Do. in progress thus - - - -  
 Do. projected thus . . . . .  
 Steam boats in connection  
 with Railways thus ————  
 Coal Districts thus ■■■■  
 Cotton Do. thus ———



# REPORT.

To His Grace the DUKE OF ARGYLL, K.T., Secretary of State for India.

MY LORD DUKE,

28th June 1869.

I HAVE the honour to lay before your Grace my tenth annual report on the subject of Railways in India.

2. As the system of trunk lines which has been sanctioned approaches completion, the yearly additional mileage becomes smaller. I have accordingly this year to report but a comparatively small increase of the length of open line. Of the 5,925 miles which comprise the present system, 4,096 have been completed, and of these 174 were opened during the past year. Twenty-one miles were added to the North-eastern line of the Great Indian Peninsula Railway in February. On the North-west line of the Madras Railway 32 miles were opened for traffic on the 1st September; 120 miles of the Delhi line, which is thus extended to Umballah, were opened by the late Viceroy, Lord Lawrence, in November; and  $1\frac{1}{2}$  miles were added to the Bombay end of the Bombay and Baroda Railway in September.

3. The following table furnishes particulars of the position of each undertaking with respect to its length of open and unopen line.

Railway.	Total Length as at present sanctioned (given approximately).	Length opened during 1868.	Total Length now opened.	Length remaining to be finished, and probable Time of Completion.			
				1869.	1870.	1871 and subsequently.	Total.
East Indian	1,276 $\frac{1}{2}$	—	1,131 $\frac{1}{2}$	—	145	—	145
{ Main line	255	—	225	—	—	—	—
{ Jubbulpore line	—	—	—	—	—	—	—
Great Indian Peninsula	1,266 $\frac{1}{2}$	21 $\frac{1}{2}$	873 $\frac{1}{2}$	—	198	200	393
Madras	528	—	492	—	—	36	36
{ S.-W. line	341	82	185	80	—	126	156
{ N.-W. line	—	—	—	—	—	—	—
Bombay, Baroda, and Central India	312 $\frac{1}{2}$	1 $\frac{1}{2}$	307 $\frac{1}{2}$	—	5	—	5
Scinde	109	—	109	—	—	—	—
Punjab	246	—	246	—	—	—	—
Delhi	320	120	174	70	76	—	146
Eastern Bengal	159	—	114	—	45	—	45
Great Southern	168	—	168	—	—	—	—
Oude and Rohilcund	672	—	42	—	36	594	630
Calcutta and Mutlah	29	—	29	—	—	—	—
Lahore and Peshawar	273	—	—	—	—	273	273
Total	5,925 $\frac{1}{2}$	174 $\frac{1}{2}$	4,096 $\frac{1}{2}$	100	500	1,229	1,829

4. No very important addition is likely to be made to the extent of open railway during the ensuing year. A further section of the Delhi line will probably be finished, as well as another portion of the north-west branch of the Madras Railway. But the completion of the chord line of the East Indian Railway and the last section of the Delhi line, which will have the effect of bringing Calcutta into direct and uninterrupted communication with Lahore by a railway 1,500 miles in length, must not be expected until the autumn of 1870. About the same time the railway between Bombay and Calcutta will probably be completed. The delay in opening this important line has been caused by the backward state of the works on the Great Indian Peninsula Railway. Fresh cases of faulty construction in some of the bridges on this line, which help to retard its completion, have, I regret to say, been reported. Great hopes, however, are entertained that during the course of next year all the necessary repairs will have been effected and the line opened to Jubbulpore, where it joins the East Indian Railway.

5. Most of the bridges which have failed, and which were originally made with arches of brick or stone, are now being reconstructed with iron girders. The substitution of iron for masonry has also been much resorted to on other lines where bridges have been injured. It is somewhat remarkable that while the inundations and floods peculiar to the country were particularly alluded to, when railways were first commenced, as amongst the difficulties that would have to be overcome, the want of sufficient waterway has been a fruitful source of danger and expense. The experience which we have gained ought not to be lost in designing future lines. This, however, was not the cause of the disastrous failures in the Great Indian Peninsula Railway. They were produced by a combination of errors. The first and foremost was the imperfect manner in which the designs and specifications were prepared; and this was followed by the use of inferior materials, and by a lax system of supervision while construction was going on.

New lines.

6. Although the subject of railway extension has, during the past year, much engaged the attention both of the Home Government and of the Government of India, the only new line which has actually been decided on is the branch of 36 miles from the present Madras Railway to the Neilgherry Hills. This however can hardly be called a new line, as it was included in the original contract with the Madras Railway Company, its execution being postponed until the accommodation which it is intended to provide was more urgently required than appeared to be the case at that time. The company have now undertaken to execute it, at the request of Government. The easy access which it will give to the bracing climate and beautiful scenery of the Neilgherry Hills will be a great boon to Europeans and their families.

Future extensions.

7. It will be recollected that the line joining Lahore with the north-west extremity of the empire at Peshawur had already been determined on. Measures are now being taken for staking it out and commencing constructive operations. With regard to schemes for future railway extension, the despatch of the Secretary of State, appended to my last annual report, in which the Government of India was invited to report to Her Majesty's Government the lines which are most called for, and the order in which they should be constructed, was followed by other despatches on the same subject. These have recently elicited from the Government a comprehensive scheme for the extension of railway communication throughout India, as well as an exposition of their views upon the agency by which it should be carried out. With regard to the latter question, the present Government agrees with the late Viceroy, Lord Lawrence, who, before his departure, recorded a minute on the subject, that the future lines should "so far as is consistent with actual and implied engagement with existing companies be carried out by the Government itself." The Government is "very far from questioning the great value of the work actually performed by companies in the prosecution of railways in a period of undoubted difficulty. But," they add, "the whole conditions of the problem have since changed, and in this as in numerous other matters of great public importance, modified methods of action are necessary to meet the altered circumstances of the time."

8. This recommendation is based upon the belief that expenditure will be kept more under control than when incurred through the agency of companies; that the cost of future lines will, in consequence, be much diminished; and that, if at one time India was wanting in experience, she now possesses all the knowledge requisite in dealing with the administration and construction of railways. (The Government also thinks that a railway through a native state, where delicate negotiations may be necessary, is much better in the hands of Government than of a company.) It is not proposed to abandon altogether the agency of companies for future lines; but the notion of allotting commercial and remunerative lines to companies, and of throwing upon Government the political and non-paying lines, did not meet with a favourable reception from the Government of India. Your Grace is aware that before these despatches were received the question of agency had engaged your attention, and that you had come to very much the same conclusions regarding it.

9. As respects the lines which are to be undertaken, Lord Lawrence's intention was to propose, and Lord Mayo entirely supports the proposal,—“that the construction of such a system of railways should be commenced as appeared likely to give a tolerably complete network of main lines, traversing all parts of India, in which considerations of policy, or the probable requirements of the trade and internal convenience of the country, indicated the utility of opening such lines, and give sufficient grounds to anticipate the eventual growth of a traffic which would pay

“ the interest on the cost of construction.” The rate of progress will depend upon the amount of capital upon which the Government can afford to pay interest out of the revenues. It is computed that 10,000 miles, in addition to the 5,000 which are either open or in course of construction, would provide necessary communication through all the chief provinces: that by an annual expenditure of 3,750,000*l.*, 300 miles could be opened every year, supposing the cost to be 12,000*l.* per mile; and that thus in about 30 years all the requirements of India would be met, “ without either extraordinary taxation, inconvenient pressure on the public revenues, or objectionable increase of the liabilities of the state.”

10. The new lines proposed are:—

1. The Indus Valley, to connect the present Scinde Railway at Kotree with the Punjab railway at Moulton.

2. Rajpootana lines, to connect Agra and Delhi with Bombay, by way of Ajmeer and Neemuch, also by way of Indore.

3. Branches from the Bombay and Baroda Railway to Veerungaum and Wudwan and into the province of Kattywar.

4. A West Coast Railway, to commence at the port of Carwar and to proceed to Hooblee and then on to the present Madras Railway at Bellary, and north to the Great Indian Peninsula Railway at or near Deeksul.

5. A junction line to connect the North-east and South-east lines of the Great Indian Peninsula Railway.

6. A line from Kulburga, on the Great Indian Peninsula Railway, to Hyderabad.

7. Branches to the Madras Railway.

8. Extension of the Great Southern of India Railway to Tuticorin.

9. East Coast lines, between Calcutta and Madras, via Midnapore, Cuttack, and the port of Coconada, and south of Madras towards Pondicherry.

10. A system of lines for Mysore.

11. A line from the Eastern Bengal Railway at Kooshtea to Darjeeling.

12. A line from Rangoon to Prome.

11. It will be observed that, notwithstanding the extensive character of the scheme, no rival or competitive projects are proposed, and that those lines which are now open and those which are about to be undertaken have large fields of their own to traverse without fear of trenching on each other's territory.

12. In a recent despatch your Grace has expressed general concurrence in the views entertained by the Government of India, and while raising doubts as to the necessity for some of the proposed lines and suggesting the postponement of others, you have authorised the immediate commencement of operations on the Indus Valley line, on the Rajpootana line, on the line from Kulburga to Hyderabad, and on that from Carwar to Hooblee, committing the execution of the same to the Government. Your Grace has also entered into negotiations with the Bombay and Baroda Railway Company for the construction of a branch from their line at Ahmedabad to Veerungaum and Wudwan, with the Great Southern for the continuation of their railway to Tuticorin, and with the Indian Tramway Company for the extension of their line to Cuddalore.

13. It is hardly necessary to remark that with the employment of direct government agency in the construction of railways in India we commence a new epoch in their history. Valuable experience has been gained, through the operations of the last 20 years, by officers of the Indian service, and Government is of course just as well able as companies to command the skill, and better able to command the money, requisite to carry on these important public works. But great care and circumspection will be required in organising an efficient system of administration. I will not here enter into a consideration of what that plan should be. I will only venture to refer to one or two conditions which appear to be essential to the success of the new policy. The funds for a railway, having been sanctioned and provided, should, I submit, be administered by a department, which, while accountable to the Supreme Government for its proceedings, should be distinct from that charged with the other financial concerns of the country; the accounts of each undertaking should be kept separate; and the execution of the works as well as the management of the affairs of each should be conducted, as far as possible, on the principle of individual responsibility.

Government  
agency.

#### SUPPLIES FROM THIS COUNTRY.

14. The shipping operations during the past year have been less than the previous year by upwards of 115,000 tons, and the value of the goods supplied from this country have been 1,849,554*l.*, as compared with 3,052,652*l.* during 1867.

15. The following table furnishes the particulars of each railway :

SHIPPING OPERATIONS DURING THE YEAR 1868.

Railway.	Number of Ships employed.	Amount of Goods shipped.	Value of Goods shipped.	Amount paid for Freight and Insurance.
		Tons.	£	£
East Indian	68	40,888	464,481	68,342
Great Indian Peninsula	100	85,615	847,700	194,018
Madras	45	20,738	156,169	45,118
Bombay, Baroda, and Central India	26	9,382	91,162	20,360
Scinde	57	6,444	19,070	16,104
Punjab		176	2,898	1,092
Indus Flotilla		84	1,630	272
Delhi		8,108	133,600	21,768
Eastern Bengal	56	12,976	95,484	18,912
Great Southern of India	4	4,247	33,100	8,940
Oude and Rohilkund	8	200	1,260	127
<b>Total</b>	<b>364</b>	<b>188,858</b>	<b>1,849,554</b>	<b>395,053</b>

16. Three ships were wrecked during the year, one with goods of the value of 8,600£ belonging to the Great Indian Peninsula Railway ; one with a cargo of coal belonging to the Scinde Railway Company valued at 2,420£., and one in which the Eastern Bengal Company had shipped 400£. worth of goods. All were fully insured.

Shipments since commencement of railway works in India.

17. The shipments which have been made from this country to India for the purposes of the railways since their commencement will be seen in the subjoined account :—

Year.	No. of Ships.	Ships lost.	Amount of Goods shipped.	Value of Goods shipped.
Up to end of 1860	2,605	39	Tons. 2,094,686	£ 10,431,976
In 1861	407	—	182,621	1,669,443
" 1862	280	1	138,013	1,487,582
" 1863	279	2	166,840	1,285,464
" 1864	233	—	102,318	1,018,164
" 1865	442	2	199,157	1,729,543
" 1866	581	7	312,227	2,527,757
" 1867	512	5	333,329	3,052,652
" 1868	364	3	188,858	1,849,554
<b>Total</b>	<b>5,703</b>	<b>59</b>	<b>3,718,049</b>	<b>25,052,135</b>

Locomotive and rolling stock.

18. The following table shews the number of locomotive engines, passenger carriages, and goods waggons added to the former stock of each company during the past year, and the number in use on the 1st January 1869. The whole number of locomotives added was 49, and the rolling stock has been increased by 142 passenger carriages and 1,743 trucks and waggons.

19. The average number of engines to the mile will thus appear to be 4.46. On the several lines the proportion is as follows :—

Railway.	Number of miles to each Locomotive.	Number of Vehicles to each Locomotive.
East Indian	3.18	16.81
Great Indian Peninsula	3.70	28.27
Madras	6.38	30.72
Bombay and Baroda	4.87	48.49
Scinde	4.36	29.40
Punjab	6.65	20.
Eastern Bengal	3.69	15.41
Great Southern of India	11.20	—
Oude and Rohilkund	10.50	27.25

## LOCOMOTIVE and ROLLING STOCK on the 31st December 1868.



Railway.	Miles open on 1st May 1869.	Locomotives.			Passenger Carriages.		Trucks and Waggons.		Total Number of Vehicles on 31st December 1868.
		Former Number.	Added in 1868.	Total Number, 31st Dec. 1868.	Former Number.	Added in 1868.	Former Number.	Added in 1868.	
East Indian - - -	1,356	425	11	436	850	50	6,202	228	7,330
Great Indian Peninsula	874	209	27	236	958	33	4,583	1,119	6,693
Madras - - -	677	106	—	106	262	15	2,680	300	3,257
Bombay, Baroda, and Central India -	307	63	—	63	181	—	2,874	—	3,055
Scinde - - -	109	25	—	25	64	—	671	—	735
Punjab - - -	246	38	—	38	116	—	669	—	785
Delhi - - -	174	6	—	6	107	—	254	—	361
Eastern Bengal -	114	32	11	43	92	8	509	54	663
Great Southern of India	168	15	—	15	33	8	205	10	256
Calcutta and South-eastern - -	29	12	—	12	56	—	478	—	534
Oude and Rohilkund -	42	4	—	4	12	28	37	32	109
Total - - -	4,096	935	49	984	2,781	142	19,092	1,743	23,778

20. The following table relates to the number of stock and debenture holders in the various companies:—

Proprietors of stock and debentures.

Railway.	Number of Shareholders on 31st December 1868.						Number of Debenture Holders.	Total Number of Proprietors on the 31st December 1868.
	Registered in England.			In India.				
	With Stock or Shares to the Amount of 1,000l. and upwards.	With Stock or Shares of less Amount than 1,000l.	Total in England.	Europeans.	Natives.	Total in India.		
East Indian - - -	5,415	7,555	12,970	200	138	338	3,640	16,948
Great Indian Peninsula -	4,148	5,835	9,983	66	105	171	1,823*	11,977
Madras - - -	2,442	3,620	6,062	—	—	—	952	7,014
Bombay, Baroda, and Central India -	2,070	3,171	5,241	14	69	83	1,030	6,354
Scinde - - -	777	845	1,622	16	3	19	156	1,797
Punjab - - -	697	1,005	1,602	17	2	19	63	1,766
Delhi - - -	1,337	1,977	3,314	40	6	46	—	3,360
Indus Flotilla - - -	206	84	290	—	—	—	120	410
Eastern Bengal - - -	595	862	1,457	19	21	40	463	1,960
Great Southern of India	341	493	834	2	7	9	123	966
Oude and Rohilkund -	441	381	822	13	20	33	74	929
Total - - -	18,469	25,828	44,297	387	371 <sup>†</sup>	758	8,444	53,499

\* Including 80 holders of debenture stock.



Stockholders.

21. The total number of individuals personally interested in the Indian railways thus amounts to 53,499, being an increase of 3,809 over the previous year. Only 371, or less than 1 per cent. of the whole, are natives of the country so largely benefited. It may be almost said, therefore, that the funds for these great works are supplied exclusively from England. There are, however, amongst the shareholders many persons whose fortunes and incomes are derived from India, either as public servants, retired officers, or through commerce.

PERSONS EMPLOYED ON THE LINES.

Officers and servants.

22. The following returns relating to the officers and servants employed on the railways is incomplete, in consequence of the non-receipt of the necessary information from Bombay regarding the lines in that presidency.

23. Compared with last year the number of Europeans employed is about the same. The natives are 1,200 in excess. The casualties from death amongst the Europeans and East Indians were at the rate of 1.31 per cent.

24. The shifting character of the European staff is exhibited by the fact that in 1868, out of 1,732 men, 613 left the service of the East Indian Railway from various causes, including dismissals, resignations, deaths, &c.

25. In connexion with this subject I may mention that the nucleus of a very important military force has been formed lately by the creation of a corps of volunteers composed of the East Indian Railway officers and men. Encouragement in the shape of a capitation allowance, and of the grant of arms will be given by Government. It is calculated that upwards of 2,000 will join this force from the East Indian Railway alone. If the employes on the other lines follow the example we shall have an organised force of from 7,000 to 8,000 men upon whom the Government could depend for aid in case of emergency. The railways would then more than ever deserve the name of important strategical works.

PERSONS EMPLOYED ON LINES

on the 1st October 1868.

Railway.	Agent's Department, including Medical and Barrack Departments.			Account Department.			Audit Department.			Printing and Stationery Department.			Stores Department.			Traffic Department, including Steam Ferry.			Engineer's Department.			Carriage and Wagon Departments.			Locomotive Department.			Telegraph Department.			Grand Total.			No. of Miles open.	No. of Stations.	
	Europeans and East Indians.	Natives.	Total.	Europeans and East Indians.	Natives.	Total.	Europeans and East Indians.	Natives.	Total.	Europeans and East Indians.	Natives.	Total.	Europeans and East Indians.	Natives.	Total.	Europeans and East Indians.	Natives.	Total.	Europeans and East Indians.	Natives.	Total.	Europeans and East Indians.	Natives.	Total.	Europeans and East Indians.	Natives.	Total.	Europeans and East Indians.	Natives.	Total.						
East Indian	35	158	193	19	376	395	32	388	426	9	317	326	75	1,255	1,330	471	4,181	4,653	131	6,029	6,730	134	4,027	4,161	771	2,203	2,974	65	856	921	1,732	20,390	22,122	1,356	130	
Madras	15	29	44	4	86	90	10	90	100				13	102	116	122	1,290	1,412	66	3,398	3,904				344	1,767	2,111	41	133	184	615	7,405	8,020	671	69	
Punjab	17	13	30	19	30	49	15	8	23	1	14	15	10	38	48	64	632	716	50	130	180	8	16	23	73	53	126	86	70	106	298	1,023	1,316	299	27	
Dellii																																				
Eastern Bengal	8	52	60	3	64	67	1	19	20		6	6	6	40	54	64	1,036	1,100	48	2,280	2,308	5	144	149	47	281	328	3	88	91	184	3,909	4,163	1,144	24	
Great Southern of India.	18	73	91														13	223	236	5	272	277				45	139	183				81	706	787	168	22
Calcutta and South-Eastern.	4		4	1	5	6		1	1					1	12	18	4	71	75	5	168	168		6	6	5	28	31		11	11	20	295	315	29	8
Oude and Rohilkund.	14	52	66	2	13	15	3	36	41	4	17	21	1	15	16	10	158	168	3	69	72				10	53	63	2	18	20	40	432	481	42	5	
Total	111	377	489	48	574	622	61	544	605	14	354	368	105	1,471	1,576	748	7,611	8,359	298	13,421	13,710	147	4,102	4,339	1,295	4,520	5,815	147	1,168	1,338	2,074	34,250	37,224	2,651	250	

## CASUALTIES UP TO THE 30TH JUNE 1868.

Railway.	General.		Tr. & Fr. Department.		Locomotive and Carriage Department.		Engi- neer's Department.		Electric Tele- graph Department.		Store Department.		Total Casual- ties of all kinds.		Total Casual- ties by Deaths.		Length in Miles.	
	Europeans.	East Indians.	Europeans.	East Indians.	Europeans.	East Indians.	Europeans.	East Indians.	Europeans.	East Indians.	Europeans.	East Indians.	Europeans.	East Indians.	Europeans.	East Indians.	Open.	Under con- struction.
	East Indian	—	1	86	30	225	102	58	9	4	3	1	6	373	159	16	—	1,356
Great Indian Peninsula	2	—	39	14	75	4	18	3	1	—	6	1	140	28	17	1	899	404
Madras	—	2	2	6	28	9	5	3	—	—	—	1	25	21	6	1	645	177
Bombay, Baroda, and Central India	—	—	7	15	15	38	3	1	—	—	—	2	25	56	6	1	308	—
Scinde	—	—	—	—	9	1	2	—	—	—	—	10	11	11	2	1	109	—
Ind. Steam Flotilla	7	—	—	—	—	—	9	—	—	—	—	—	16	—	2	—	—	—
Punjab and Delhi	4	—	11	3	14	—	3	—	—	—	—	—	35	3	4	—	209	236
Eastern Bengal	2	1	6	1	15	5	9	—	—	1	—	—	32	6	4	1	113	45
Great Southern of India	—	3	—	1	2	3	1	3	—	—	—	—	3	10	1	4	168	—
Calcutta and South-Eastern	—	—	—	1	2	—	—	—	—	—	—	—	9	1	—	—	29	—
Oude and Rohilkund	2	3	1	—	2	—	3	1	1	3	—	—	9	7	1	—	42	630
<b>Total</b>	<b>17</b>	<b>16</b>	<b>153</b>	<b>71</b>	<b>376</b>	<b>162</b>	<b>111</b>	<b>20</b>	<b>6</b>	<b>12</b>	<b>9</b>	<b>20</b>	<b>671</b>	<b>305</b>	<b>69</b>	<b>9</b>	<b>3,948</b>	<b>1,648</b>

## ACCIDENTS.

26. It will be seen by the following statements, which have been prepared in India, Accidents. that during the year 1868 the mean length of line open was 3,958 miles, that the total number of train miles run was 11,431,656, and that the total number of accidents to trains was 259, or one per 44,137 train miles. The number of persons killed was 192, of whom 25 were passengers, making a mortality of about 1.50 per million; but nine out of the 25, or more than one third of them, lost their lives from their own indiscretion or want of caution, so that the average risk is better expressed by one per million. Fourteen of the remaining 16 were killed on one line at the same time. A train on the Eastern Bengal Railway ran into another train which was waiting in a station siding. The other persons killed consisted of 110 servants of the companies and 57 trespassers. Of the 274 who were injured but not killed, 64 were passengers, 189 servants, and 21 trespassers.

27. Since the close of the year under review an accident of an alarming character has occurred on the Great Indian Peninsula Railway. It happened to a train on the Bhoré Ghât incline on the 26th January. While proceeding down the incline, all control over the train being lost, it flew into the reversing station at the bottom of the hill, ran over the embankment, and killed 18 native passengers. According to the first accounts received, the cause of the accident was attributed to the extraordinary slipperiness of the rails in consequence of a heavy dew; but considering that the line has been subject to similar influences for the last 10 years, it appeared impossible that this could be the sole and real cause of the catastrophe. If it had been, it would have shaken confidence in the means employed for working the traffic up and down the ghâts. A special investigation into the matter was however made by a commission appointed by the Government, and the conclusion to which they have come is, that the break power had not been judiciously applied on the occasion, and "that the proximate cause of the accident was want of proper caution" on the part of those in charge of the train." They also express their conviction that, with proper management, the command of the trains on the ghâts can never be lost, and they do not see the necessity for introducing a third central rail on the principle adopted on the Mont Cenis incline. The Company and the Government will of course see that measures are taken to secure that "proper management."

28. In connexion with the subject of accidents it is worth while to notice a new, or rather hitherto undiscovered, source of danger from fire, which was detected on the Cawnpore and Lucknow Railway. Live wood-ash, escaping from the fire of the engine, was blown up, by the draught of the passing train, against the dry wood of the trucks and set fire to them.

TABLE NO. I.

ABSTRACT of the NUMBER and NATURE of the ACCIDENTS and of the Injuries to Life and Limb which have occurred on all Railways open for Traffic in India during the Year 1866.

Presidency.	Mean Mileage open.	Railways.	Classification of Accidents to Trains, &c.						Passengers.				Servants of Companies or of Contractors.				Other Persons.						Total Persons of all Classes.				
			Main Heads.					Total.	From Causes beyond their own Control.		From their own Misconduct or want of caution.		From Causes beyond their own Control.		From their own Misconduct or want of caution.		While crossing at Level Crossings.		While trespassing (including Suicides).		Miscellaneous.		Killed.	Injured.	Killed and Injured.		
			I. Collisions.	II. Getting off proper Line.	III. Fire.	IV. Running over Carriage.	V. Other Causes.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.							
Bengal	1,345	East Indian	1868	37	14	1	2	3	57	—	32	5	13	4	32	54	88	1	3	24	4	6	4	94	171	265	
	1,224		1867	31	15	—	3	13	62	—	6	—	11	2	8	34	59	—	—	24	—	5	—	67	96	163	
Ditto	113	Eastern Bengal	1868	1	—	—	—	—	1	14	—	—	—	1	—	3	1	—	1	—	—	—	—	19	7	26	
Ditto	29	Calcutta and South-eastern.	1867	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	2	
Ditto	28		1868	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ditto	42	Oude and Rohilkund	1867	—	7	18	—	—	20	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	
Ditto	28		1868	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ditto	27	Nulhattee and Azimgunge.	1867	—	2	—	—	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ditto	246		1868	1	—	—	—	—	1	—	—	—	—	—	2	1	—	—	—	—	—	—	—	—	—	—	
Ditto	246	Punjab	1867	—	2	3	—	1	6	—	—	—	—	1	—	2	1	—	—	—	—	—	—	—	—	—	
Ditto	53		1868	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ditto	24	Delhi	1867	—	1	—	—	1	2	—	—	—	—	1	—	1	3	—	—	—	—	—	—	—	—	—	
Ditto	24		1868	—	2	10	—	1	18	—	—	—	—	—	6	7	1	—	6	—	—	—	—	—	—	—	
Madras	656	Madras	1867	1	3	2	1	—	7	—	—	—	—	2	2	4	1	—	1	—	1	—	—	—	—	—	
Ditto	645		1868	—	—	—	—	—	—	—	—	—	—	—	1	3	—	—	—	—	—	—	—	—	—	—	
Ditto	168	Great Southern of India.	1867	—	1	1	1	—	3	1	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ditto	185		1868	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ditto	19	Conjeveram Tramway	1867	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ditto	19		1868	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Bombay	872	Great Indian Peninsula	1867	20	71	2	6	14	118	—	—	—	—	5	14	23	82	1	—	12	5	—	2	1	45	55	100
Ditto	847		1868	14	19	15	16	9	78	12	22	—	1	4	8	82	28	—	1	17	5	—	—	—	65	65	130
Ditto	306	Bombay, Baroda, and Central India.	1867	3	7	—	17	—	27	1	—	—	1	—	2	9	10	—	—	2	2	—	—	—	13	15	28
Ditto	306		1868	11	8	—	6	6	31	1	5	—	—	—	2	17	15	—	—	5	1	—	—	—	23	26	49
Ditto	109	Scinde	1867	2	2	—	8	12	24	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Ditto	109		1868	1	5	—	5	2	18	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—
India	3,958		1868	64	104	27	34	80	259	16	42	9	22	10	50	100	139	3	3	45	18	9	5	192	274	466	
	3,724		1867	58	57	20	31	85	201	18	88	2	15	10	23	95	118	4	1	52	18	7	5	182	208	390	

TABLE NO. II.—NUMERICAL ABSTRACT OF ACCIDENTS of all Classes on all Railways open for Traffic in India during the Year 1868.

	BENGAL, NORTH-WESTERN PROVINCES, OUDE AND PUNJAB.												MADRAS.						BOMBAY.						Total.				
	E. Indian.		E. Bengal.		G. & S. E.		O. & B.		N. & A.		Punjab.		Delhi.		Madras.		G. S. OF I.		Conjeveram Tramway.		G. I. P.		B. B. & C. I.					Scinde.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed & Injured.		
<b>PASSENGERS.</b>																													
<i>From causes beyond their own control, viz. :—</i>																													
From accidents to trains	—	31	14	6	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	15	40	55
From other causes	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	1	2	3
Total	—	32	14	6	—	—	—	—	—	—	—	—	—	—	—	1	4	—	—	—	—	—	—	—	—	16	42	58	
Per million of passengers	—	6.36	10.8	4.62	—	—	—	—	—	—	—	—	—	—	—	1.27	5	—	—	—	—	—	—	—	—	.99	2.59	3.58	
<i>From their own misconduct or incaution</i>																													
Per million of passengers	.99	2.58	—	—	—	—	—	—	—	—	—	—	—	.94	1.88	—	—	—	—	—	.57	.86	—	.6	—	.55	1.35	1.9	
Total from all causes	5	45	14	6	—	—	1	—	—	—	—	—	—	2	4	1	4	—	—	2	3	1	1	—	—	25	64	89	
<b>SERVANTS OF COMPANIES AND OF CONTRACTORS.</b>																													
<i>From causes beyond their own control -</i>																													
From their own misconduct or incaution	4	82	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	5	14	—	2	—	1	70	50	60	
Total from all causes	58	115	4	1	—	—	—	—	—	—	2	1	—	—	8	8	1	3	—	28	46	9	12	—	3	110	189	299	
<b>OTHER PERSONS.</b>																													
Crossing at level crossings	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	3	3	6	
Trespassers, including suicide -	24	4	1	—	—	—	—	—	—	—	—	—	—	—	6	—	—	1	—	12	5	2	2	—	1	45	13	58	
Miscellaneous	6	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	1	—	—	—	9	5	14	
Total from all causes	31	11	1	—	—	—	—	—	—	—	—	—	—	7	—	—	1	—	—	15	6	3	2	—	1	57	21	78	
Grand total of all classes from all causes	94	171	19	7	—	—	1	—	—	—	2	1	—	—	17	12	2	8	—	45	55	13	15	—	4	192	274	466	
Mean length of railway open during the year (miles)	1,345		113		29		42		—		246		53		656		168		19		872		306		109		3,958		
Number of passengers carried	5,026,018		1,297,543		311,631		888,054		—		668,590		289,452		2,122,527		785,972		93,696		3,493,312		1,655,988		146,076		16,228,859		
Train mileage (goods and passengers)	4,898,427		351,410		41,037		65,226		—		344,700		80,453		1,416,471		303,654		28,709		2,935,154		793,713		172,702		11,431,656		

TABLE No. III.

Shewing the TOTAL NUMBER of ACCIDENTS to PERSONS of all kinds, and to TRAINS, &c., on all RAILWAYS open for TRAFFIC in each Presidency of India, during the Year 1868.

Presidencies.	Mean Length of Railway open.	Total Number of Train Miles.	Train Miles per Mile open.	Total Number of Accidents to Trains, &c., of all kinds.	Total Number of Passengers carried.	Average Number of Passengers per Mile opened.	Passengers.		Servants.				Trespassers, &c.		Total.			
							Killed.	Injured.	Beyond own Control.		Within own Control.		Killed.	Injured.	Killed.	Injured.	Killed and Injured.	
									Killed.	Injured.	Killed.	Injured.						
Bengal -	1868	1,328	5,781,253	3,162	79	7,931,288	4,338	19	52	5	32	59	85	32	11	115	180	295
	1867	1,690	6,834,941	3,706	74	7,134,090	4,221	2	17	4	8	41	69	32	12	79	106	185
Madras -	1868	843	1,748,834	2,074	16	3,002,195	3,561	3	8	—	1	9	10	7	1	19	20	39
	1867	780	1,599,383	2,051	10	2,495,787	3,200	—	—	2	2	5	4	6	—	13	6	19
Bombay -	1868	1,287	3,901,569	3,031	164	5,295,376	4,115	3	4	5	17	32	44	18	9	53	74	132
	1867	1,262	3,831,565	3,035	117	5,246,653	4,156	13	31	4	13	49	45	24	7	90	96	186
India -	1868*	3,958	11,431,656	2,388	259	16,228,859	4,100	25	64	10	50	100	139	57	21	192	274	466
	1867†	3,705	11,766,389	3,176	201	14,366,530	4,012	15	48	10	23	95	118	62	19	182	208	390

\* Exclusive of figures for the Nulhattee and Azimgunge Light Railway, but including those for the Conjeveram Tramway.

† Exclusive of figures for both the above lines.

## CAPITAL.

29. The total amount of capital which up to the 31st March 1869 had been raised for Indian railways was 82,376,625*l.* Of this sum 6,233,718*l.* was added during the past year. Expenditure.

30. The expenditure by the companies, which is exclusive of the cost of the land granted by the Government, has been about 79,000,000*l.* The amount expended during the year was 4,548,000. Of this 600,000*l.* is owing to the Government on account of advances made to two or three companies, so that there is a sum of about 3,400,000*l.* now available for expenditure by the railway companies during the ensuing year. This expenditure, which will be shared chiefly by the Great Indian Peninsula, the East Indian, the Delhi, and the Oude and Rohilcund companies, and which includes the cost of stores on revenue account sent from this country for all the railways, is expected to amount to 6,600,000*l.* To arrive however at the sum which will probably be expended on construction or *capital* account during the year, a million and a half should be deducted for *revenue* expenses, and half a million must be added for the cost of the works now being undertaken by Government.

31. The following table gives the annual expenditure by all the companies :—

Year.	Miles opened during the Year.	Expended in England.	Expended in India.	Total.
		£	£	£
Up to 1850	—	130,375	44,781	175,156
In 1851	—	154,212	197,111	351,323
" 1852	—	174,920	252,640	427,560
" 1853	22½	252,484	418,165	670,649
" 1854	50½	960,878	768,710	1,729,588
" 1855	93½	1,939,101	1,431,904	3,371,005
" 1856	101½	1,752,813	1,765,094	3,517,907
" 1857	143	1,324,873	2,092,395	3,417,268
" 1858	145	1,940,052	3,551,073	5,491,125
" 1859	74½	2,507,949	4,654,923	7,162,872
" 1860	208	2,396,924	5,192,846	7,589,770
" 1861	759	1,596,010	4,962,604	6,558,614
" 1862	747	1,854,289	3,956,563	5,810,852
" 1863	233½	1,411,661	3,360,114	4,771,775
" 1864	402½	1,387,699	2,418,345	3,806,044
" 1865	388½	2,192,090	3,192,323	5,384,413
" 1866	205	3,942,598	3,816,957	7,759,555
" 1867	349	4,045,584	2,979,376	7,024,960
" 1868	174½	1,935,012	2,613,626	4,548,638

32. The estimated cost of the lines, as at present sanctioned, and in the hands of the companies, is 97,200,000*l.* Of this 14,000,000*l.* remains to be raised, but the expenditure will be spread over five or six years.

33. Of the 82,376,620*l.* which has been raised, only 800,781*l.*, or less than one per cent., was subscribed in India. The expenditure in India has been about 47,400,000*l.* compared with 31,600,000*l.* in England.

34. The amount raised by debentures is 15,976,515*l.* Particulars of the debenture loans will be found on page 17.

35. The following statements, which have been prepared in the Accountant General's office, furnish detailed accounts of the past and future expenditure of each company :—

STATEMENT No. 1.

Showing the Amount of Capital estimated to be required for each Undertaking as now sanctioned, the Amount authorised to be raised, the Amount raised, and the Amount expended, to 31st March 1869.

Railway.	Estimated Cost of Lines.	Amount authorised to be raised to 31st March 1869.					Amount raised in England to 31st March 1869.				Amount raised in India to Date of last Advices.	Total Amount raised to 31st March 1869.	Total Amount expended to 31st March 1869 (partly estimated).
		Share Capital.	Debentures.		Debenture Stock.	Total.	Share Capital.	Debentures.		Debenture Stock.			
			Convertible into Shares.	Inconvertible.				Convertible.	Inconvertible.				
East Indian { Main line - -	£ 27,500,000	£ 19,975,590	£ 2,024,410	£ 4,450,000	£ —	£ 26,450,000	£ 19,619,072	£ 1,993,310	£ 4,450,000	£ —	£ 310,283	£ 26,372,665	£ 26,571,270
East Indian { Jubbulpore line	£ 3,500,000	£ 2,196,140	£ 1,003,860	£ —	£ —	£ 3,200,000	£ 2,152,295	£ 1,003,860	£ —	£ —	£ 7,665	£ 3,163,820	£ 2,603,701
Great Indian Peninsula - -	£ 26,000,000	£ 17,000,000	£ —	£ 4,000,000	£ 600,000	£ 21,600,000	£ 16,051,502	£ —	£ 8,926,950	£ 600,000	£ 394,449	£ 20,972,901	£ 19,653,805
Madras { Main line - -	£ 6,500,000	£ 4,394,700	£ 1,520,250	£ 335,050	£ —	£ 6,250,000	£ 4,338,214	£ 1,411,150	£ 335,050	£ —	£ —	£ 6,084,414	£ 9,115,127
Madras { Bellary line - -	£ 4,500,000	£ 3,750,000	£ —	£ —	£ —	£ 3,750,000	£ 3,686,355	£ —	£ —	£ —	£ —	£ 3,686,355	£ 3,686,355
Scinde - - - - -	£ 2,250,000	£ 1,920,200	£ 179,800	£ 150,000	£ —	£ 2,250,000	£ 1,885,043	£ 179,800	£ 124,600	£ —	£ 21,775	£ 2,211,218	£ 2,013,365
Indus Flotilla - - -	£ 700,000	£ 542,600	£ 81,400	£ —	£ —	£ 624,000	£ 332,505	£ 25,400	£ —	£ —	£ —	£ 357,905	£ 593,683
Punjab - - - - -	£ 3,000,000	£ 2,150,000	£ 100,000	£ 300,000	£ 200,000	£ 2,750,000	£ 1,983,894	£ —	£ 300,000	£ —	£ 11,157	£ 2,295,051	£ 2,623,533
Delhi - - - - -	£ 6,000,000	£ 5,000,000	£ —	£ —	£ —	£ 5,000,000	£ 4,819,038	£ —	£ —	£ —	£ 17,836	£ 4,836,874	£ 4,019,623
Bombay, Baroda, and Central India - - - - -	£ 7,750,000	£ 6,285,900	£ 1,114,100	£ 100,000	£ —	£ 7,500,000	£ 6,232,600	£ 1,114,095	£ 100,000	£ —	£ 21,664	£ 7,468,359	£ 7,399,039
Eastern Bengal - - -	£ 2,800,000	£ 2,238,000	£ —	£ 610,700	£ —	£ 2,848,700	£ 1,954,885	£ —	£ 610,700	£ —	£ 14,731	£ 2,580,316	£ 2,589,242
Great Southern of India - -	£ 1,700,000	£ 1,080,400	£ 169,600	£ 100,000	£ —	£ 1,350,000	£ 1,079,179	£ 169,600	£ 100,000	£ —	£ 1,221	£ 1,350,000	£ 1,408,472
Onde and Rohilkund - - -	£ 5,000,000	£ 3,800,000	£ 200,000	£ —	£ —	£ 4,000,000	£ 864,747	£ 132,000	£ —	£ —	£ —	£ 996,747	£ 895,795
<b>Total * - - - -</b>	<b>£ 97,200,000</b>	<b>£ 70,333,530</b>	<b>£ 6,393,420</b>	<b>£ 10,045,750</b>	<b>£ 800,000</b>	<b>£ 87,572,700</b>	<b>£ 64,999,329</b>	<b>£ 6,029,215</b>	<b>£ 9,947,300</b>	<b>£ 600,000</b>	<b>£ 800,781</b>	<b>£ 82,376,625</b>	<b>£ 78,986,655</b>

\* The Calcutta and South-eastern Railway, which has been taken by the Government, is not included in this list. The capital expended on it was about £616,000.

Accountant General's Department,  
3d April 1869.

W. G. GOODLIFF,  
Accountant General.

STATEMENT No. 2.

Shewing the Amount raised and expended by each Company during the Year ended 31st March 1869.

Railway.	Sums standing to the Credit of the Companies on the 31st March 1868.	Sums advanced to the Companies on the 31st March 1868.	Amount raised between 1st April 1868 and 31st March 1869.		Amount expended:				Total raised during the Year ended 31st March 1869.	Total Amount expended during the Year ended 31st March 1869 (partly estimated).
			Share Capital.	Debenture Stock.	In England, between 1st April 1868 and 31st March 1869.	In India.				
						Date to which Accounts have been received.	Amount.	Estimated Expenditure between dates specified and 31st March 1869.		
	£	£	£	£	£		£	£	£	£
East Indian	—	60,608	1,097,838	—	291,098	31st Dec. 1868	264,618	120,000	1,097,838	675,716
Great Indian Peninsula	578,039	—	2,123,098	600,000	1,025,326	"	656,715	300,000	2,723,098	1,982,041
Madras	805,131	—	220,328	—	150,758	"	159,059	60,000	220,328	369,817
Scinde	137,268	—	113,724	—	33,796	"	15,343	4,000	113,724	53,139
Indus Flotilla	—	243,478	26,500	—	12,527	"	5,273	1,000	26,500	18,800
Punjab	—	542,972	254,685	—	9,681	30th Nov. 1868	22,514	8,000	254,685	40,195
Delhi	209,348	—	1,383,350	—	159,840	"	415,607	200,000	1,383,350	775,447
Bombay, Baroda, and Central India	279,266	—	99,196	—	92,359	31st Dec. 1868	166,783	50,000	99,196	309,142
Eastern Bengal	161,136	—	60,800	—	97,044	"	103,818	30,000	60,800	230,862
Great Southern of India	2,030	—	—	—	29,606	"	22,896	8,000	—	60,502
Oude and Rohilkund	379,730	—	254,199	—	32,977	—	—	—	254,199	32,977
<b>Total</b>	<b>2,551,948</b>	<b>847,058</b>	<b>5,633,718</b>	<b>600,000</b>	<b>1,935,012</b>	<b>—</b>	<b>1,832,626</b>	<b>781,000</b>	<b>6,233,718</b>	<b>4,548,638</b>

Accountant General's Department,  
3d April 1869.

W. G. GOODLIFFE,  
Accountant General.



STATEMENT No. 3.

Estimated Expenditure for the Year 1869-70 for Purposes of Capital and Revenue.

Railway.	Estimated Expenditure from 1st April 1869 to 31st March 1870.			Sum standing to the Credit or Debit of the Companies, 1st April 1869.	Sums to be raised by the Companies during 1869-70.	Total Amount now placed and to be placed in Home Treasury of Government in 1869-70.	Estimated Balance on the 1st April 1870.
	In England.	In India.	Total.				
	£	£	£	£	£	£	£
East Indian - - - - -	300,000	700,000	1,000,000	Cr. 361,000	800,000	1,161,000	161,000
Great Indian Peninsula - - - - -	500,000	1,500,000	2,000,000	Cr. 1,320,000	1,000,000	2,320,000	320,000
Madras - - - - -	220,000	250,000	470,000	Cr. 655,000	—	655,000	185,000
Bombay and Baroda - - - - -	100,000	250,000	350,000	Cr. 70,000	330,000	400,000	50,000
Scinde - - - - -	46,000	10,000	56,000	Cr. 196,000	—	196,000	140,000
Punjab - - - - -	50,000	50,000	100,000	Deb. 328,000	450,000	450,000	22,000
Delhi - - - - -	120,000	600,000	720,000	Cr. 817,000	200,000	1,017,000	297,000
Indus Flotilla - - - - -	12,000	10,000	22,000	Deb. 236,000	270,000	270,000	12,000
Eastern Bengal - - - - -	20,000	260,000	280,000	Deb. 9,000	300,000	300,000	11,000
Great Southern of India - - - - -	10,000	20,000	30,000	Deb. 58,000	100,000	100,000	12,000
Oude and Rohilkund - - - - -	700,000	900,000	1,600,000	Cr. 600,000	1,100,000	1,700,000	100,000
Total - - - - -	2,078,000	4,552,000	6,628,000	Cr. 4,019,000 Deb. 631,000 Net Cr. 3,388,000	4,553,000	8,569,000	1,310,000

36. The amount of capital issued by each company in the shape of debentures, Debentures, together with the rate of interest and the dates at which the respective loans expire, will be found in the subjoined statement :—

## STATE OF DEBENTURE LOANS on the 31st March 1869.

Railway.	Amount.			Rate of Interest	Date at which Loan expires.	Whether renewable.
	Convertible.	Inconvertible.	Total.			
East Indian	£ 35,700	£ —		4½	5th April 1869.	Renewable.
"	6,000	—		4½	10th July 1869.	
"	356,040	—		5	5th October 1869.	
"	190,000	—		5	20th January 1870.	
"	1,003,860	—		5	23d March 1870	
"	—	1,500,000		5	10th August 1876.	
"	—	1,500,000		5	15th Dec. 1870.	
"	664,920	—		5	1st April 1871.	
"	690,650	—		5	9th August 1871	
"	50,000	—		4½	10th July 1872.	
"	—	1,000,000		4½	22d August 1872.	Renewable.
"	—	440,000		4½	19th March 1873.	
"	—	10,000		4½	19th March 1875.	
	2,997,170	4,450,000	7,447,170			
Great Indian Peninsula	—	194,600		5	31st Dec. 1869.	Renewable.
"	—	521,000		4½	" "	
"	—	36,900		5	30th June 1870.	
"	—	67,550		5	31st Dec. 1870.	
"	—	313,700		4½	" "	
"	—	382,350		5	30th June 1871.	
"	—	6,400		4½	" "	
"	—	583,400		5	31st Dec. 1871.	
"	—	1,074,450		5	" "	
"	—	435,000		5	30th June 1872.	
"	—	42,800		4½	" "	
"	—	268,800		5	30th June 1873.	
	—	3,926,950	3,926,950			
Madras	87,900	24,050		4½	1st July 1869.	Renewable.
"	202,600	—		5	1st January 1870.	
"	54,900	—		5	1st July 1870.	
"	117,550	311,000		5	1st January 1871.	
"	21,000	—		5	1st July 1871.	
"	479,700	—		5	1st January 1872.	
"	497,500	—		5	" "	
	1,411,150	335,050	1,746,200			
Scinde	179,800	—		5	1st May 1870.	Renewable.
"	—	124,600		4½	1st September 1870.	
	179,800	124,600	304,400			
Indus Steam Flotilla	25,400	—	25,400	5	1st May 1871.	
Punjab	—	300,000	300,000	4½	1st July 1870.	
Bombay, Baroda, and Central India	384,300	—		5	1st January 1870	Renewable.
"	—	100,000		4½	15th January 1871.	Renewable.
"	491,900	—		5	1st July 1871	
"	237,395	—		5	1st July 1872.	
	1,114,095	100,000	1,214,095			
Eastern Bengal	—	18,000		5	1st November 1869.	Renewable.
"	—	15,250		5	12th April 1871.	
"	—	333,450		5	12th October 1871.	
"	—	62,000		5	1st November 1871	
"	—	181,900		5	1st November 1874.	
	—	610,700	610,700			
Great Southern of India	500	—		5	1st January 1870.	Renewable.
"	58,300	—		5½	1st July 1870.	
"	—	25,000		4½	1st January 1871.	
"	—	75,000		4	1st July 1871.	
"	10,400	—		5	" "	
"	500	—		5	1st January 1872.	
"	32,500	—		5	1st July 1872.	
"	10,000	—		5	1st January 1874.	
"	57,400	—		5	1st July 1874.	
	169,600	100,000	269,600			
Oude and Rohilkand	5,600	—		5	31st January 1870	Renewable.
"	200	—		5	14th February 1870	
"	125,600	—		5	15th April 1870	
"	200	—		5	28th July 1871	
"	100	—		5	9th March 1872	
"	300	—		5	24th March 1872	
	132,000	—	132,000			
			15,976,515			

## Expenditure.

37. The statement given below relates to the manner in which the expenditure has been distributed among the various works and departments of the railways:—

Railway.	Works and Bridges.	Permanent Way and Stations.	Freight and Insurance.	Rolling Stock and Engines.	Establishments.	Miscellaneous, Electric Telegraph, Stores, &c.
East Indian - - - -	£ 9,125,000	£ 6,735,000	£ 2,885,000	£ 3,265,000	£ 3,530,000	£ 3,502,000
Great Indian Peninsula - -	7,695,000	5,693,000	Including stores, 2,031,000	2,249,000	1,288,000	170,000
Madras - - - -	2,669,000	3,203,000		852,000	733,000	376,000
Bombay, Baroda, and Central India -	2,875,000	1,776,000	525,000	1,066,000	673,000	294,000
Scinde - - - -	564,800	366,000	203,000	197,000	263,000	157,000
Punjab - - - -	213,000	796,000	445,000	449,000	403,000	215,000
Delhi - - - -	962,000	1,827,000	53,000	383,000	175,000	450,000
Indus Flotilla - - - -	Steamers, &c., 565,000	Warehouses, 44,830	34,000	—	63,000	49,000
Eastern Bengal - - - -	1,693,000		Included under other heads.	275,000	249,000	306,000
Calcutta and South-eastern - -	135,000	218,000	Do.	144,000	82,000	23,000
Great Southern of India - -	928,000		Do.	96,000	154,435	62,000
Oude and Rohilkund - - - -	85,750	130,000	Do.	77,300	64,000	104,000

## REVENUE AND TRAFFIC.

## Traffic receipts.

38. The year 1867-68 commenced with diminishing returns, and did not quite recover the lost ground before its close, but towards the end an improvement was visible, and the lines presented proofs, which have since been realised, of a reviving prosperity. During the winter season the traffic has exceeded all former returns, and the joint gross earnings for several weeks from the East Indian and the Great Indian Peninsula Railways alone have amounted to 100,000*l.* a week, or at the rate of more than 5,000,000*l.* a year. Another satisfactory feature of the *last* accounts is that economy in working the lines is shown by a reduction in the expenses.

39. The net revenue for the year ending 30th June 1868 was 2,100,122*l.*, being 237,178*l.* less than that of the previous year.

40. The gross receipts were 4,831,395*l.*, and the working expenses were 2,731,273*l.*, as compared with 4,875,112*l.* and 2,537,812*l.* of last year.

41. The actual expenditure on the lines which have earned the above amount last year may be taken at 71,000,000*l.*, so that, joining the good with the bad, the dividend realisable was on the average about 3 per cent.

42. The following table gives the receipts and expenses of each company during the year:—

RECEIPTS AND EXPENSES of the RAILWAYS for the Year ending 30th June 1868.

Railway.	Receipts.				Expenses.			Percent- age of Ex- penses to Gross Receipts.	Net Receipts.
	Pas- sengers, &c.	Goods and Minerals.	Tele- graph and Sundries.	Total.	Work- ing.	Main- tenance.	Total.		
East Indian - - - -	£ 681,826	£ 1,351,992	£ 32,034	£ 2,065,902	£ 828,925	£ 234,930	£ 1,063,855	51.40	£ 1,002,047
Great Indian Peninsula -	347,821	1,016,114	16,264	1,379,999	664,116	206,677	870,792	63.11	508,907
Madras : South-west Line	151,878	231,126	15,188	398,192	115,492	61,244	176,736	44.38	221,456
" North-west Line	29,215	86,281	1,320	116,816	33,531	6,968	40,499	34.66	76,317
Bombay, Baroda, and Cen- tral India - - - -	182,363	199,072	31,004	412,439	201,137	78,491	279,628	67.79	132,811
Scinde - - - -	20,503	89,039	2,010	111,552	67,111	20,543	87,654	78.57	23,898
Punjab - - - -	38,210	56,321	2,069	96,600	57,097	14,858	71,955	74.48	24,645
Delhi - - - -	7,522	1,194	62	8,778	15,373	15	15,388	175.3	6,610
Eastern Bengal - - - -	70,386	75,222	3,076	148,684	57,117	16,503	72,620	48.84	76,064
Great Southern of India -	37,478	24,763	1,204	63,445	26,531	4,264	30,795	48.53	32,650
Oude and Rohilkund - -	24,773	4,357	158	29,288	19,346	2,005	21,351	72.9	7,937
Totals - - - -	1,591,475	3,136,481	104,439	4,831,395	2,085,775	646,498	2,731,273	56.53	2,100,122

STATEMENT of TRAFFIC RESULTS for the Year ending 30th June 1868.

Railway.	Length of Line Open.			Length of Sidings.	Passenger Traffic.							Goods Traffic.						Number of Trains run.					No. of Miles travelled by Trains, exclusive of Shunting, &c.						
	Double.	Single.	Total.		Number of Passengers (exclusive of Holders of Season and Periodical Tickets).				Number of Holders of Season and Periodical Tickets.	Carriages.	Horses.	Dogs.	Live Stock.			Minerals.			General Merchandise.	Passenger Trains.	Goods and Mineral Trains.	Mineral Trains.	Mixed Trains.	Total.	By Passenger Trains.	By Goods and Mineral Trains.	By Mineral Trains.	By Mixed Trains.	Total.
					1st Class.	2d Class.	3d Class, including Parliamentary, &c.	Total Passengers.					Cattle.	Sheep.	Pigs.	Coal and Coke.	Other Minerals.	Total.											
East Indian	175	956	1,131	2454	35,101	116,494	4,682,394	4,338,620	557	No.	No.	No.	No.	No.	No.	Tons.	Tons.	Tons.	Tons.	7,028	18,252	—	8,504	33,784	1,701,047	3,146,479	—	63,441	4,910,967
Great Indian Peninsula	1004	7734	8744	—	31,740	192,030	3,384,107	3,607,896	1,412	514	8,426	6,405	3,213	343,072	8	81,079	307,765	388,844	503,269	10,474	17,350	5,595	7,593	35,012	854,622	1,190,964	37,302	600,644	3,773,523
Madras (South-west Line)	—	402	402	—	7,788	58,915	1,586,158	1,602,361	6	801	3,781	2,723	6,243			—	—	—	208,006	—	—	—	7,102	7,102	—	—	—	1,134,320	1,134,320
“ (North-west Line)	—	153	153	—	907	5,437	427,476	433,820	—	216	705	550	687			—	—	—	92,894	—	—	—	3,510	3,510	—	—	—	252,620	252,620
Bombay, Baroda, and Central India	15	291	306	—	7,701	47,321	1,580,476	1,635,498	32	293	2,207	1,091	5,087	196,031	254	6,255	1,881	8,088	163,988	1,077	3,963	4,195	2,066	11,321	230,200	317,564	30,918	98,882	681,664
Scinde	5	104	109	48	1,310	5,715	134,508	142,008	2,894	95	2,879	691	1	168	2	5,800	—	5,800	160,604	315	1,205	—	1,019	2,539	83,429	118,652	—	61,253	213,334
Punjab	—	246	246	—	6,274	37,729	568,006	612,610	—	48	2,012	1,190	80	138	—	—	—	—	63,340	3,412	1,809	—	—	5,221	204,054	159,721	—	—	363,306
Delhi	—	53	53	—	2,530	6,796	129,740	130,068	—	17	892	521	9	20	—	—	—	—	8,373	—	—	—	1,344	1,340	—	—	—	35,215	35,215
Eastern Bengal	—	113	113	—	30,844	42,183	1,167,301	1,240,388	275	187	640	982	131	575	—	9,082	12,661	91,728 Railway Materials, 9,774	110,032	2,863	1,617	—	63	5,110	160,986	124,711	—	52,920	347,618
Great Southern of India	—	163	163	12	2,581	3,036	558,020	564,537	—	160	593	866	39	9	—	—	—	—	49,308	All trains are "Mixed."—No return made					—	—	—	269,612	269,612
Oude and Rohilkund	—	42	42	44	2,761	9,060	232,171	243,993	—	68	117	600	169	23	—	—	—	—	16,418	—	—	—	1,423	1,423	—	—	—	59,673	59,673

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STATEMENT of TRAFFIC RESULTS for the Year ending 30th June, 1868—continued.

Railway.	Number of Engines employed to perform the Work described in the foregoing Column.	Average Parcels per Mile.			Receipts (Gross) from Passenger Traffic.										Receipts (Gross) from Goods Traffic.						Miscellaneous Receipts.	Total Receipts from all Sources of Traffic.	Average Receipts per Train Mile.	
		1st Class.	2d Class.	3d and 4th Class.	Receipts from Passengers.						Total Receipts from Excess Luggage, Parcels, Carriages, Horses, Dogs, &c., conveyed in Passenger Trains.	Receipts from Mails.	Total Receipts from Passenger Traffic.	Receipts per Train Mile from Passengers.	Live Stock.	Minerals.			General Merchandise.	Total Receipts from Goods Traffic.				Receipts per Train Mile from Goods.
					1st Class.	2d Class.	3d Class, including Parliamentary, &c.	Holders of Season and Periodical Tickets.	Special Trains.	Total from Passengers.						Coal and Coke.	Other Minerals.	Total from Minerals.						
East Indian - - - -	352	2	2	2	£ 37,016	£ 49,592	£ 480,773	£ 2,930	£ 1,972	£ 572,887	£ 77,334	£ 773	£ 650,998	2.6	£ 3,821	£ 180,503	—	£ 180,503	£ 1,172,003	£ 1,325,899	5.2	£ 28,231	£ 2,005,126	6.1
Great Indian Peninsula - -	170	2.06	1.03	.45	19,134	30,289	243,545	2,118	3,199	298,204	42,723	6,374	347,361	2.5	12,276	47,357	20,556	67,913	937,759	1,017,948	7.3	—	1,365,308	9.8
Madras (South-west Line) -	81	2.06	.68	.34	10,987	12,166	109,456	77	293	131,970	17,921	—	149,990	2.0	650	—	—	—	230,476	231,125	4.07	17,167	394,192	7.
„ (North-west Line) -	19	2.06	.08	.34	673	808	24,605	—	—	26,086	3,120	—	29,215	2.8	145	—	—	—	85,702	85,847	6.7	1,754	116,616	9.2
Bombay, Baroda, and Central India -	•	2.06	1.	.50	3,947	10,476	151,338	44	936	166,791	15,508	205	182,504	5.3	9,561	2,421	15,522	17,943	188,144	215,649	6.3	—	398,152	11.6
Scinde - - - -	19	1.44	1.08	.40	876	1,075	15,008	63	—	17,622	2,882	—	20,504	1.9	6	263	—	262	88,771	89,039	8.3	2,010	111,553	10.4
Punjab - - - -	•	1.77	.94	.37	2,347	6,197	25,440	—	—	33,984	4,143	80	38,210	2.1	88	—	—	—	66,232	66,320	3.09	—	94,531	5.19
Delhi - - - -	•	2.06	1.03	.31	622	483	4,279	—	—	5,284	409	9	5,695	2.2	2	—	—	—	1,099	1,101	.6	—	6,796	3.8
Eastern Bengal - - - -	•	2.06	1.03	.51 .34	3,927	3,111	56,809	596	—	64,445	6,340	4,209†	74,003	4.2	95	4,117	6,037	10,154	64,974	75,223	4.3	—	140,226	8.5
Great Southern of India - -	15	2.06	.67	.34	821	622	34,174	—	67	35,584	1,893	—	37,477	2.7	56	—	—	—	24,707	24,763	1.8	1,205	63,445	4.7
Oude and Rohilkund - - -	4	2.10	.62	.33	1,070	1,269	12,206	—	—	14,598	1,897	—	16,495	5.5	13	—	—	—	5,330	5,343	1.7	—	21,535	7.3

• Not stated.

† Mails, Telegraphs, &c.

STATEMENT showing the EXPENSES connected with the MAINTENANCE and WORKING of the RAILWAYS, in the Gross, and per Train Mile, for the Year ending 30th June 1868.

Railway.	Maintenance and Renewal of Way and Works.		Cost of producing Locomotive Power by Wages and Materials.		Repairs and Renewals of Carriages and Waggon.		Traffic Charges.				Rates and Taxes.		Compensation for Personal Injury, &c.		Compensation for Damages and Loss of Goods.		Legal and Parliamentary Expenses.		Miscellaneous Working Expenditure, not included in the foregoing.		Total Working Expenditure.	
	Gross.	Per Train Mile.	Gross.	Per Train Mile.	Gross.	Per Train Mile.	Coaching.		Merchandise.		Gross.	Per Train Mile.	Gross.	Per Train Mile.	Gross.	Per Train Mile.	Gross.	Per Train Mile.	Gross.	Per Train Mile.	Gross.	Per Train Mile.
							Gross.	Per Train Mile.	Gross.	Per Train Mile.												
East Indian	£ 280,232	11' 3	£ 336,979	16' 4	£ 63,170	2' 4	£ 180,306	8' 8	£ 124,037	10' 8	£ 3,579	2' 17	£ 111	2' 005	£ 2,381	2' 11	£ 966	2' 04	£ 103,183	2' 9	£ 1,000,006	4' 4
Great Indian Peninsula	206,077	17' 8	335,508	20'	60,760	5' 7	48,122	4' 1	124,037	10' 8	—	—	5,959	4'	1,962	16	951	07	79,855	6' 8	870,702	6' 3
Madras (South-west Line)	63,395	13' 4	62,922	13' 8	6,234	1' 3	13,620	2' 7	16,531	3' 9	202	05	—	—	51	01	101	02	12,240	2' 6	176,737	3' 1
(North-west Line)	7,790	7' 3	14,188	13' 4	1,807	1' 2	1,354	1' 7	3,294	3' 7	4	—	—	—	—	—	—	—	11,159	10' 5	40,499	3' 3
Bombay, Baroda, and Central India	78,491	20'	87,972	20' 9	32,047	11' 5	16,066	5' 9	24,352	8' 5	610	2'	—	—	2,209	7'	1,707	6'	34,614	12' 1	279,828	8' 2
Scinde	20,543	23' 1	35,178	39' 5	3,938	4' 4	13,722	21'	Entered under Coaching.	—	—	—	—	—	Entered under Coaching.	—	118	13	9,136	10' 3	87,665	8' 2
Punjab	14,358	9' 7	26,517	16' 6	1,523	1'	12,313	8'	8,544 Partly entered under Coaching.	2' 3	192	12	—	—	136	08	27	01	12,841	8' 4	71,955	2' 9
Delhi	—	—	6,810	31' 3	490	2' 3	5,547	25' 8	Entered under Coaching.	—	—	—	—	—	48	22	—	—	2,134	9' 9	15,034	5' 8
Eastern Bengal	15,504	10' 7	18,690	13'	4,511	3' 1	9,810	6' 1	7,912	5' 4	159	11	—	—	1,400	9	212	14	15,215	10' 5	72,619	4' 1
Great Southern of India	6,033	5' 3	12,206	13' 5	3,042	2' 7	4,265	3' 8	Entered under Coaching.	—	—	—	—	—	—	—	—	—	2,148	1' 9	30,794	2' 2
Oude and Rohilkund	379	1' 5	4,507	12' 1	1,193	4' 8	4,233	17'	Entered under Coaching.	—	—	—	—	—	16	04	—	—	5,630	22' 7	15,960	5' 3

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Receipts and expenses.

43. The tables on pp. 19-21, relating to the receipts and working expenses of each railway, furnish statistics which are useful and interesting, as well for comparison as for the general results which they exhibit. The number of passengers conveyed was 15,066,530, as compared with 13,746,354 of the previous year, and 12,867,000 of the year before that. Of the 15,000,000 conveyed last year, only 130,000, or less than 1 per cent., were 1st class, and 535,000, or about 3½ per cent., were 2nd class.

44. The receipts from passengers were 1,591,475*l.* compared with 1,376,812*l.*, and from goods 3,135,481*l.*, compared with 3,499,868*l.* of the previous year.

45. It will be observed that the proportion per cent. of expenditure to total receipts varies considerably. On the Scinde line, which is short and expensive to work, and with a very moderate traffic, it is 78·57; on the Madras North-west line it is only 34·66.\* On English lines the variation is greater still, the working expenses on some amounting to 23, 41, and 51 per cent. only, and on others to 89 and even more than 100 per cent., compared with the receipts. The average in 1866 was, England and Wales 49, Scotland 49, Ireland 57.

Train mileage receipts and expenses.

46. The train mileage receipts and expenses, which are the best tests that can be applied to the working of a railway, are shown in the subjoined table:—

TRAIN MILEAGE RECEIPTS AND EXPENSES, 1867-68.

Railway.	RECEIPTS.	EXPENSES.										
	Total from all Sources.	Maintenance.	Locomotive.	Rolling Stock.	Passenger Traffic.	Goods Traffic.	Rates and Taxes.	Personal Compensation.	Compensation for Damage.	Legal Expenses.	Miscellaneous.	On account of all Departments.
	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
East Indian	8·1	11·3	16·4	4·	8·8		·17	·005	·11	·01	7·9	4·
Great Indian Peninsula	9·8	17·8	20·	5·7	4·1	10·8	—	·4	·16	·07	6·8	6·2
Madras, South-west Line	7·	18·4	13·3	1·3	2·7	3·9	·05	—	·01	·02	2·6	3·1
„ North-west „	9·	7·3	13·4	1·4	1·7	3·7	—	—	—	—	10·5	3·2
Bombay, Baroda, and Central India	11·6	27·6	30·9	11·6	5·9	8·5	·3	—	·7	·6	13·1	8·3
Scinde	10·4	23·1	39·5	4·4	21·		—	—	—	·16	10·2	8·2
Punjab	5·19	9·7	16·6	1·	8·	2·3	·12	—	·05	·01	6·4	3·9
Delhi	3·8	—	31·8	2·3	25·8		—	—	·23	—	9·9	5·8
Eastern Bengal	6·5	10·7	13·	3·1	6·1	6·4	·11	—	·2	·14	10·5	4·1
Great Southern of India	4·7	5·8	13·5	2·7	3·8		—	—	—	—	1·9	2·2
Oude and Rohilkund	7·3	1·5	13·1	4·8	17·		—	—	·00	—	—	5·3

47. A considerable difference will be observed in the train mileage receipts and expenses of the various lines. That large receipts produce little benefit unless attended with a moderate expenditure is shown by the example of the Bombay and Baroda and of the Scinde companies, whose train mileage receipts are largest and whose net receipts are the least. The maintenance charges of these lines are 27*d.* and 23*d.* per train mile respectively, while those of the East Indian, Eastern Bengal, and Great Southern are only 11·3*d.*, 10·7*d.*, and 5·3*d.* The great difference may in some measure be accounted for by the exceptional expenses on account of the repairs of works damaged by floods. On branches of the same railway there is sometimes a considerable difference in the maintenance charges. On the North-west line of the Madras the cost per train mile has been 7·3*d.*, on the South-west 13·4*d.* An example is furnished on this line of the results produced by employing iron sleepers. On the portion which is laid with wooden sleepers the expense of maintenance was 113*l.* 5*s.* 10*d.* per mile. On the part that was laid with iron it was only 69*l.* 7*s.* 4*d.* per mile. If proof were wanting, it is thus given that where a suitable ballast for iron sleepers is available, it is true economy to use them.

Locomotive Department.

48. The next item of expenditure which presents the greatest contrast on different lines is that of the Locomotive Department. While the train mileage cost of this department on the East Indian is 16·4*d.*, on the Great Indian Peninsula it is 29*d.*, and on the Scinde 39·5*d.* The reason of this is plain. The East Indian pays on an average about 20*s.* a ton for native coal. The lines on the western coast are at present

\* The case of the Delhi is quite exceptional, and with regard to itself can be taken as no criterion of the future. Portions of the line only have been open. There have been heavy expenses for repairing damages from floods, and little traffic could be expected.

dependent for coal upon England or Australia, the cost of which comes to from Fuel. 60s. to 80s. a ton. The railways on the Madras coast are, however, equally deficient in a supply of native coal, and have during the past year paid even a higher rate for English coal, and yet the cost of their locomotive department is less than those in Bengal, amounting only to 13·4*d.* on the Madras, and to 13·5*d.* on the Great Southern. This may in some measure be accounted for by the lowness of wages and the lightness of their trains compared with those on the East Indian; but it is also due to the use of a considerable proportion of wood fuel, and also to good management. Fuel must always be a source of great expense on those lines which are at a distance from coal producing districts or from forests. It is therefore most important, in the interests of Indian railways, to develop the coal resources of the country, and to regulate and preserve the forests. The Government is very anxious to promote both these objects. I have referred to Australian coal; it has been tried on some of the lines of Western India, and has been well reported on; the experience of the locomotive superintendent of the Scinde company is that "it is equal to Welsh coal in all respects, its evaporative power is nearly equal to Welsh coal, but the consumption per mile is less than with Welsh coal." The price hitherto has been under that of English or Welsh coal. Fuel made of compressed coal dust and certain cohesive ingredients has also been used and found to answer well. Experiments have lately been made in this country by Mr. F. C. Danvers, of this office, with the view of devising means for the manufacture in India, with materials on the spot, of blocks of this kind of fuel.

49. With regard to lubricating substances, it is now generally admitted that oil should be used for axle boxes on Indian railways. Mr. Wright, the locomotive superintendent of the Madras Railway, introduced a plan of applying oil to the axle which materially reduces the cost of haulage as well as of wear and tear. Sufficient attention has perhaps hitherto hardly been paid to the importance of adapting the power used to the results expected; waste in this respect, whether it be caused by running too many carriages and trucks, or trucks and carriages of too great a weight, or by producing unnecessary friction, adds to the haulage cost of every train, and makes a great difference in a year's returns. Lubricating substances.

50. The question as to what proportion the dead weight of rolling stock should bear to the load carried has been fully discussed by the consulting engineers to the different companies; and the result will be the adoption of such principles in the construction of trucks, waggons, and vehicles of all sorts as will secure a strength and capacity suited to the requirements of the traffic. Proportion of dead weight to carrying power.

### MISCELLANEOUS.

51. Among the miscellaneous questions connected with railways which have been under discussion during the past year the following may be referred to:—The question of an uniform system of weights and measures for India has received the consideration of the Government of India, and it has been decided by your Grace that the metric system in connexion with weights is to be introduced, the kilogramme being adopted as the new unit. Weights and measures.

52. Arrangements have been made between the Government and the companies for running special postal trains when required, the cost of their haulage being paid by Government. Carriages for sorting letters are also to be used in some cases, and Government is also to pay for the haulage of these. Postage arrangements.

53. When famine threatened certain districts in the northern and western parts of India, arrangements were made for the conveyance of grain to the districts where scarcity prevailed, at  $\frac{1}{8}$  of a pie per maund per mile, or less than one halfpenny per ton per mile. Famine rates for grain.

### GUARANTEED INTEREST.

54. The guaranteed interest paid out of the revenues of India during the past year ending 31st December, amounted to 3,704,388*l.*, being 465,546*l.* more than the previous year. The receipts, however, from the railways which have been paid in reduction of this sum amounted to about 2,200,000*l.*, so that the actual disbursement by Government on this account was about 1,500,000*l.*

55. The whole sum which Government has advanced for interest since the commencement of the railways now amounts to 25,751,073*l.*, of which 13,658,753*l.* has been repaid by the companies, leaving a debt against them of 12,092,320*l.* (exclusive of simple interest), to be paid out of excess profits.



## GUARANTEED INTEREST.—INDIAN RAILWAYS.

Statement of the Total Amount of Interest advanced to each of the under-mentioned Railway Companies to 31st December 1868.

Company.	Interest paid up to 31st December 1867.	Interest paid during 1868.						Total Amount paid up to the end of 1868.
		England.		India.		Total.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
East Indian - - -	9,911,665 1 5	1,382,584 3 11	12,848 8 10	1,395,432 12 9	11,307,097 14 2			
Great Indian Peninsula	4,912,856 10 2	865,905 19 1	19,534 12 4	885,440 11 5	5,798,297 1 7			
Madras - - -	2,979,010 17 9	448,135 6 11	—	448,135 6 11	3,427,146 4 8			
Scinde - - -	731,352 4 5	100,449 0 0	1,084 15 0	101,533 15 0	832,885 19 5			
Punjab - - -	617,525 16 0	99,195 7 8	481 1 9	99,676 9 5	717,202 5 5			
Delhi - - -	275,411 15 9	155,254 4 0	565 17 6	155,820 1 6	431,231 17 3			
Indus Steam Flotilla	134,321 19 7	17,238 3 11	—	17,238 3 11	151,560 3 6			
Bombay, Baroda, and Central India - - -	1,648,341 12 11	360,459 0 6	1,083 4 4	361,542 4 10	2,009,883 17 9			
Eastern Bengal - - -	536,415 10 9	121,037 16 9	698 15 11	121,736 12 8	658,152 3 5			
Great Southern of India	267,116 4 3	61,460 14 9	—	61,460 14 9	328,576 19 0			
Oude and Rohilkund -	54,486 13 4	34,551 18 8	—	34,551 18 8	89,038 12 0			
<b>Total - - -</b>	<b>£22,068,504 6 4</b>	<b>3,646,271 16 2</b>	<b>36,296 15 8</b>	<b>3,682,568 11 10</b>	<b>25,751,072 18 2</b>			

Accountant General's Department,  
2d April 1868.

W. G. GOODLIFFE,  
Accountant General.

Guaranteed interest.

56. The gross amount advanced by the Government every year necessarily increases with the growth of capital, but the net amount depends upon the earnings of the railways. The following statement shows the variation in these payments. It is hardly necessary to observe that the capital on which the guaranteed interest is payable is invariably larger than the capital expended on the lines earning revenue, and this will necessarily be the case so long as the railways are unfinished.

The following statement shows the amount which has been paid each year for guaranteed interest, and the amounts earned by the companies :

Year.	Amount paid for Guaranteed Interest.	Amount of Railway Earnings.	Net Amount paid out of the Revenues of India.
	£		
1849 - - -	1,525	From 1849 to 1858, £ 488,866	£ 1,788,052
1850 - - -	31,239		
1851 - - -	30,020		
1852 - - -	65,044		
1853 - - -	69,072		
1854 - - -	109,069		
1855 - - -	213,307		
1856 - - -	404,507		
1857 - - -	619,443		
1858 - - -	733,692		
1859 - - -	1,013,138	403,057	610,081
1860 - - -	1,336,752	389,413	947,339
1861 - - -	1,668,340	391,162	1,277,178
1862 - - -	1,982,324	625,615	1,356,709
1863 - - -	2,323,605	821,548	1,502,057
1864 - - -	2,569,798	1,129,851	1,439,947
1865 - - -	2,796,677	2,865,574	†
1866 - - -	2,964,074	2,347,085	616,989
1867 - - -	3,238,842	1,989,112	1,249,730
1868 - - -	*3,704,388	†2,207,470	1,496,918
	25,874,856	£13,658,753	12,285,000
Deduct Calcutta and South-Eastern Indian Tramway	£ 163,725 1,500	Less, excess in 1865	- 68,897 †
	165,225		- 12,216,103
	25,709,631		165,225
Add Oude and Rohilkund prior to 1867	41,442		12,050,878
	£25,751,073		41,442
			£12,092,320

\* Inclusive of Calcutta and South-eastern, 20,320. Inclusive of Indian Tramway, 1,500.

† Partly estimated.

‡ The amount of railway earnings this year exceeded the amount paid for guaranteed interest by 68,897.

The following observations relate to the various undertakings, in the order in which they are generally placed :—

## EAST INDIAN RAILWAY.

57. The constructive operations on this line are now coming to a conclusion. The chord line is the only remaining work which will open fresh means of communication. All other operations are directed to the doubling of certain sections of the line, and to giving a finishing touch to station buildings, to dwellings for the officers and servants of the company, and to works of detail. It was estimated by Mr. A. M. Rendel, the consulting engineer to the company, who went out to India in the winter of 1867-68 for the purpose, among other objects, of examining the unfinished portions of the undertaking, that a sum of 3,340,000*l.* would be required to carry out these necessary operations. Of this sum 2,860,000*l.* has been raised, so that only about half a million more will have to be provided. Expenditure on capital account will then cease, unless the increase of traffic should demand further accommodation and more rolling stock.

East Indian Railway.

58. The completion of the chord line, which will be opened next year, will shorten the distance between Calcutta and all places above Luckeserai by 70 miles.

59. The proposal to extend the railway into Calcutta by a bridge over the Hooghly has been superseded by the determination of Government to construct an ordinary road bridge, which will connect the Howrah terminus of the railway with the city, and meet all the requirements both of the railway and of the community. The designs for this bridge are now being prepared by Mr. A. M. Rendel.

60. With regard to the traffic, there was a falling off in the early half of 1868, which was accounted for by the great reduction in the traffic in cotton, the low price in England checking exportation. The latter half showed signs of improvement, and the increase now is considerable. The reduction in the maintenance and working charges is a very satisfactory feature in the last returns.

61. For the two last years ending 31st December they were as follow:—

	Gross Receipts.	Expenses.	Net Receipts.
	£	£	£
1867	- 2,153,054	1,074,070	1,078,984
1868	- 2,234,980	997,033	1,237,947

## GREAT INDIAN PENINSULA RAILWAY.

62. The object to which the chief energies of the company connected with this undertaking are now directed is the repair of those works on the open line which failed, and the completion of the final sections of the North-east and South-east branches, which will effect through railway communication between Bombay and Calcutta and Bombay and Madras. It is hoped that the former of these lines will be finished in the course of next year, but I fear that the latter will hardly be ready for opening until 1872.

Great Indian Peninsula.

63. The masonry bridges which have given way have been replaced by structures consisting of wrought-iron girders supported on brick, and in some instances iron foundations. It is estimated that the reconstruction of these works and the general repairs will cost about 1,300,000*l.*

64. The traffic has been influenced by the depression of trade. The expense of maintenance and working still remains very high, being 63·11 per cent. of the gross receipts, but efforts are being made to reduce it.

65. In the year 1868 the gross receipts amounted to 1,480,039*l.*, compared with 1,486,712*l.* of the previous year, the net receipts being 565,277*l.* and 658,706*l.* respectively.

## MADRAS RAILWAY.

66. Thirty-two miles have been added to the open length of this undertaking during the year. Steady progress has, upon the whole, been made with the works on the unfinished portions, and the line towards the point of junction with the Great Indian Peninsula Railway is in a state which promises completion sooner than that line will be ready to join it.

Madras.

67. The branch to the foot of the Neilgherry Hills, which formed a part of the system originally included in this company's contract, is about to be put in hand.

68. In July the line was damaged and the traffic interrupted in two places by the bursting of tanks, which increased the force of the floods so much as to wash away one bridge on the Bangalore branch and another on the North-west line. In reconstructing these bridges wider openings have been made.

69. Lord Mayo, on his way from Bombay to Calcutta to assume the reins of Government, proceeded by way of Madras along this railway, and during his journey from

Beyapore rode for 60 miles on the engine, expressing himself much pleased, after this personal observation, with the condition of the line.

70. The traffic continues to present a steady and satisfactory progress. Notwithstanding the depressed state of trade during the year, there has been a fair increase both in passengers and goods, and the line has been maintained and worked with the care and economy usually shewn by the officers of this company.

71. The gross receipts of the year ending December 1868 were 566,141*l.* against 470,992*l.* of the previous year, and the net receipts 331,217*l.* against 267,737*l.*

### BOMBAY AND BARODA RAILWAY.

Bombay and  
Baroda Railway.

72. The construction works on this line are at present confined to the short extension over the Sabarmuttee river at its northern extremity and to the execution of the necessary works at the Bombay terminus.

73. It has now been decided to fix the Bombay terminal station at Colaba, and no further delay will probably occur in taking the line there and in putting up the buildings.

74. The large bridge which carries the line over the Nerbudda did not escape the force of the last monsoon floods. Two spans were washed away on the 10th July. The traffic was interrupted only for a short time, a timber staging having been erected without delay for the passage of trains. This is not the first warning that has been given of the liability of the Nerbudda bridge to be damaged by the violence of the floods; and an investigation is now being made by Mr. John Hawkshaw, the eminent engineer, in conjunction with the chief resident engineer of the line, Mr. Mathew, and Captain Hancock, the Government consulting engineer, into the stability of this and similar structures, and measures will probably soon be taken for adding to their strength and durability.

75. The past year has not been a favorable one for traffic. The depressed state of trade has affected both passenger and goods traffic. That for the two last years was as follows:—

Year ending December	Gross Receipts. £	Expenses. £	Net Receipts. £
1867 - -	425,050	282,899	142,151
1868 - -	419,714	272,495	147,219

### SCINDE RAILWAY.

Scinde Railway.

76. This line has been well maintained during the year, and the monsoon rains passed over without inflicting any injury upon it.

77. The traffic shows an increase over the preceding year, and the working expenses have been considerably reduced.

### 78. THE INDUS FLOTILLA

Indus Flotilla.

has been conducted with care and regularity. The traffic received a considerable impulse from the conveyance of troops on their return from the Abyssinian Expedition; but last half-year, without this aid, the earnings would have been greater than on any previous occasion. No addition has been made to the fleet, which consists of 16 steamers, including three tugs, and 46 barges.

### 79. THE PUNJAB RAILWAY

Punjab Railway.

has been maintained in good order, and the works on construction account have been trifling. The Ameer of Cabul travelled over a portion of this line on his way to meet the Viceroy at Umballah, on the 27th March, and expressed his admiration for this mode of locomotion, which he had never before seen.

### 80. THE DELHI RAILWAY

Delhi Railway.

was opened for a further distance of 120 miles, connecting Meerut with Umballah, in November, by the late Viceroy, Lord Lawrence. He afterwards traversed the whole distance from Umballah to Calcutta, a length of 1,300 miles, in 44 hours. The works on the unopened portions of the line have been carried on with energy. The most important of these are the bridges over the Sutlej and Beas. Another one hundred and forty miles of this line will probably be opened before the end of the year. The opening of the remaining six miles depends upon the completion of the Sutlej bridge.

81. One of the difficulties attending bridge construction in India is the shifting character of the streams; and an example of this has unfortunately occurred on the

Sutlej where this very bridge is to cross it. The river, which runs through a valley five miles wide, and has for the last 70 or 80 years flowed along the northern side, seems now disposed to change its course to the southern side. It has already so far altered its position as to make it necessary to extend the bridge, which was originally designed for a crossing of 4,000 feet, a further length of 2,200 feet, involving a cost of upwards of 60,000*l*.

82. The four undertakings which now comprise the system of the Scinde Railway are about to be amalgamated under the sanction of a special Act of Parliament. Much advantage, both in the shape of economy and simplicity of management, will be obtained by this arrangement.

#### EASTERN BENGAL RAILWAY.

83. The works on the Goalundo extension of this line have been going on steadily ; Eastern Bengal. but the erection of the bridge over the Goraie river has not progressed so rapidly as was expected. The bed of the river presented difficulties which required deeper foundations for some of the piers than was contemplated. The line, with the exception of this bridge, may be completed in February next, and will be opened upon arrangements being made for carrying the traffic across the river.

84. There has been a steady development of traffic both in passengers and goods ; and if the present low rate of expenditure is maintained, there is every prospect of more favorable returns.

85. The Calcutta and South-eastern Railway, which was taken over by the Government in May 1868, is now worked by the Eastern Bengal agency, under an arrangement by which the Government pay for superintending and terminal charges and take the receipts of the line. No account has been received of its working since this change was made.

86. The gross receipts of the Eastern Bengal for the year 1868 were 198,811*l*. as compared with 156,917*l*. of the previous year, the net receipts being 96,210*l*. against 77,844*l*.

#### GREAT SOUTHERN OF INDIA RAILWAY.

87. The whole length of line which this company undertook to construct has been at work for more than a year. Its junction with the Madras Railway at Erode took place on the 1st January 1868, and arrangements were made between the two companies for making that station available for the use of each.

Great Southern of India.

88. The question of the extension of the line in a southerly direction to Tuticorin is now under consideration.

89. The traffic has been conducted economically, and has increased, but the returns are not yet very considerable. Comparing the last two years the results are as follows :—

	Receipts.	Expenses.	Net Receipts.
1867	£58,191	£27,682	£30,509
1868	73,380	33,601	39,779

#### OUDE AND ROHILKUND RAILWAY.

90. No addition has been made to the open portion of this line, viz., between Cawnpore and Lucknow, but progress has been made with the works on the extension from Lucknow to Byram Ghât, and it is expected that this section will be ready for traffic next year.

Oude and Rohilkund.

91. The route for the other lines of this company's system has been settled, and is being staked out. Starting from Moradabad the line will proceed south of the Ramgunga River to Chundowsee, with a branch from thence to Allyghur on the East Indian Railway, crossing the Ganges at Ram Ghât, the main line going on to Bareilly and Shahjehanpoor to Lucknow, Nawubgunge, Fyzabad, and Akberpoor, whence it will take two directions, one going to Benares, the other to Buxar. Between Benares and Lucknow, a distance of 203 miles, the average height of the embankments will be about three feet ; there will be 10 bridges, four unimportant, and the rest of no real magnitude, and the cost is now estimated at about 10,000*l*. per mile.

92. The light system of permanent way put down on the Cawnpore and Lucknow line is not found to be suitable for the 5 ft. 6 in. gauge. A modification will be introduced on the rest of the line. The rails determined on weigh 60 lbs. to the yard, and cast-iron sleepers will be generally used.

93. It is not unlikely that special arrangements will be made for the execution of the branch line to the Nynsee Tal ironworks, and that for this line a narrow gauge will be found suitable.

### THE INDIAN TRAMWAY.

94. No addition has been made to the 18 $\frac{3}{4}$  miles between Arconum and Conjeveram, which is at present the extent of this undertaking. The operations of the company are, however, soon likely to be enlarged, as negotiations are in progress for continuing the line to Cuddalore, the cost of which is estimated at about 800,000*l.* The line has been maintained in good order, but the traffic during the year has, like that of other railways, suffered from the state of trade.

### SUMMARY.

95. The principal information contained in the foregoing report may be briefly summed up as follows:

96. The length of line now open is 4,096 miles, of which 175 miles were completed during the past year. About 1,830 miles of the system already determined on remain to be constructed; but a new scheme for additional railway communication throughout India is about to be commenced and to be executed, for the most part, through the direct instrumentality of Government. It is expected that the great trans-peninsula line which will connect Calcutta with Bombay will be completed and open for traffic in the autumn of next year.

97. The capital which has been expended on Indian railways, exclusive of the cost of the land, amounted on the 31st March last to 78,986,655*l.*, of which 4,548,638*l.* was expended during the past year. The expenditure in this country last year was 1,935,012*l.*, in India 2,613,626*l.*

98. The number of persons who as proprietors of India Railway Stock are directly interested in the success of these undertakings has now risen to 45,055, an addition of 4,015 having been made during the year. There are debenture holders also to the number of 8,444.

99. Stores and materials to the amount of 188,858 tons, and of the value of 1,849,554*l.* have been sent out during the year, making a total of 3,718,049 tons, which, at a cost of 25,052,135*l.* have been shipped from this country to India since the commencement of railway operations there.

100. It has not been a prosperous year for traffic; trade has been almost stagnant; certain districts have been threatened with famine, and there has been a general depression in all descriptions of business. This has, of course, told upon the internal communication of the country, and the railway receipts have suffered accordingly. The falling off, however, is confined to goods traffic. The passenger traffic shews an increase both in numbers and receipts. Comparing the two last years, the amounts realised from passengers were 1,591,475*l.* and 1,376,812*l.* respectively. That from goods in 1867-68 was 3,135,481*l.*, in 1866-67 3,326,607*l.* The total net receipts in 1867-68 were 2,100,122*l.* as against 2,337,300*l.* in 1866-67.

101. The whole amount that has been advanced by Government for guaranteed interest from the beginning in 1849 now exceeds 25,700,000*l.* Of this about 13,650,000*l.* has been paid back by the companies out of the railway earnings, leaving upwards of 12,000,000*l.* to be paid out of excess profits over 5 per cent. The largest amount which, after deducting the railway receipts, has been paid in any one year was 1,500,000*l.* in 1863. The average amount paid by Government has been 707,500*l.* per annum.

102. The number of passengers last year was 15,066,530, of whom 14,401,000 were third class. In 1866-67 the total number was 13,746,354. The train miles run were 11,042,251 and 11,980,319 respectively.

103. While the steady advance which has hitherto been made in the revenue receipts has not been sustained during the past year for reasons which have been explained, and while cause has been given for disappointment at the failure of some of the works and at the delay in completing others, the general results are not unsatisfactory, and there is much to inspire hope for the future. The immense importance of these great works, as affecting the prosperity, security, and social improvement of the country is daily becoming more and more manifest, and their success as commercial undertakings is clearly shewn to be attainable by those to which care, economy, and skilful management are applied.

I have the honour to be, my Lord Duke,

Your Grace's very obedient humble servant,

JULAND DANVERS.

## APPENDIX.

The following lists contain the names of the stations on the various lines, with the distances between each other:—

### EAST INDIAN RAILWAY.

LIST of STATIONS ON MAIN LINE and BRANCHES between HOWRAH or CALCUTTA and DELHI.

Distances from Howrah or Calcutta.		Stations.	Distances between Stations.	
Branches.	Main Line.		Main Line.	Branches.
<b>BENGAL DIVISION.</b>				
Miles.	Miles.		Miles.	Miles.
—	—	HOWRAH	—	—
—	6	Bally	6	—
—	9	Connaghur	3	—
—	12	Serampore	3	—
—	15	Bidabatty	3	—
—	21	Chandernagore	6	—
—	24	Hoogly	3	—
—	29	Mugrah	5	—
—	38	Pundoo	9	—
—	44	Boinchee	6	—
—	51	Mymaree	7	—
—	59	Suktikur	8	—
—	67	BURDWAN	8	—
		Branch from Khanoo to Barrackur.		
90	—	Mankoor	—	23
97	—	Panaghur	—	7
121	—	RANNEEGUNJ	—	24
132	—	Assensole	—	11
138	—	Seeterampore	—	6
143	—	BARRACKUR	—	5
		Branch Line from Barrackur Branch.		
129	—	SINGHARRON	—	8
	87	Gooshkarah	20	—
	94	Bhedeah	7	—
	99	Bulpore	5	—
	111	Abmoodpore	12	—
	119	Syntheea	8	—
	129	Mullarpoor	10	—
	136	Rampore	7	—
	145	Nullhatee	9	—
	156	Moorarooee	11	—
	163	Rajgowan	7	—
	170	Pakowr	7	—
	178	Beejapore	8	—
	186	Bahawa	8	—
	196	Teenpahar	10	—
	195	TEENPAHAR JUNCTION	11	—
		Branch from Teenpahar to Rajmahal.		
202	—	RAJMAHAL	—	7

Distances from Howrah.		Stations—continued.	Distances between Stations.	
Branches.	Main Line.		Main Line.	Branches.
Miles.	Miles.		Miles.	Miles.
—	211	Maharajpore	15	—
—	219	Sahibgunj	8	—
—	233	Peerpoynsee	14	—
—	247	COLGONG	14	—
—	253	Ghogah	6	—
—	266	Bhagulpore	13	—
—	281	Sultangunge	15	—
—	292	Burriarpore	11	—
—	299	Jumalpore	7	—
303	—	Branch from Junction to Monghyr. MONGHYR	—	6
—	305	Durrarah	6	—
—	316	Kudjra	11	—
—	326	Luckeserai	10	—
—	336	Burhea	10	—
—	347	Mokameh	11	—
—	363	Barh	16	—
—	374	Bucktearpore	11	—
—	389	Futwah	15	—
—	396	PATNA	7	—
—	402	Bankipore	6	—
—	408	Dinapore	6	—
—	419	Bihta	11	—
—	433	ARRAH	14	—
—	446	Beehea	13	—
—	455	Rogonathpore	9	—
—	465	Domroon	10	—
—	475	BUXAR	10	—
—	483	Bengal Division ends at River Kurrumnassa.	—	—
<b>NORTH-WESTERN PROVINCES DIVISION.</b>				
—	488	Guhmer	13	—
—	498	Dildarnugger	10	—
—	507	Zumeniah	9	—
—	522	Sikuldeah	15	—
—	534	MOGUL SERAI JUNCTION	12	—
540	—	Branch from Mogul Serai to Benares. BENARES	—	6
—	542	Ahrowta Road	8	—
—	554	CHUNAB	12	—
—	563	Puharee	9	—
—	573	MIRZAPORE	10	—
—	585	Garpoora	12	—
—	595	Nuwaco	10	—
—	605	Sirsa Road	10	—
—	618	Kirchuna	13	—
—	629	ALLAHABAD	11	—
631½	—	Branch from Allahabad to Fort. ALLAHABAD FORT	—	2½
—	640	Monourie	11	—
—	652	Bhurwari	12	—
—	665	Serathee	13	—
—	680	Khaga	15	—
—	689	Berhampore	9	—
—	701	Futtehpore	12	—
—	711	Malwa	10	—
—	721	Mowhar	10	—
—	735	Sirsoul	14	—
—	748	CAWNPORE JUNCTION	13	—

Distances from Howrah.		Stations-- continued.	Distances between Stations.	
Branches.	Main Line.		Main Line.	Branches.
Miles.	Miles.		Miles.	Miles.
749	—	Branch from Junction to Cawnpore. CAWNPORE	—	1
—	769	Blowpore	14	—
—	775	Roora	13	—
—	787	Jheenjuk	12	—
—	800	Puphoond	13	—
—	810	Utchulda	10	—
—	822	Burtua	12	—
—	835	Etawah	13	—
—	844	Jaawuntnugger	9	—
—	856	Badan	12	—
—	869	Shekoabad	13	—
—	881	Ferozabad	12	—
—	892	TOONDLA JUNCTION	11	—
905	—	Branch from Toondla Junction to Agra. AGRA	—	13
—	901	Burhun	9	—
—	909	Jaleysur Road	8	—
—	921	Hattrass Road	12	—
—	931	Palee	10	—
—	940	ALLYGHUR	9	—
—	954	Somna	14	—
—	967	Khoorgah	13	—
—	976	Chola	9	—
—	985	Secundrabad	9	—
—	995	Dadree	10	—
—	1,006	Ghazeeoodemnugger	11	—
—	1,018	DELHI	12	—

## JUBBULPORE LINE.

## STATIONS and DISTANCES.

Distances from Allahabad.		Stations.	Distances between Stations.	
Branches.	Main Line.		Main Line.	Branches.
Miles.	Miles.		Miles.	Miles.
—	—	Allahabad	—	—
—	5	Nynee	5	—
—	15	Jusra	10	—
—	28	Seorajpore	13	—
—	39	Burgurh	11	—
—	55	Oonchadeek	16	—
—	62	Manickpore	7	—
—	72	Markoondee	10	—
—	86	Mugjowan	14	—
—	99	Jetwar	13	—
—	112	SUTNA	13	—
—	124	Urcharah	12	—
—	132	Myhere	8	—
—	149	Undarraah	17	—
—	161	Jokhye	12	—
—	172	Kutnee	11	—
—	189	Sleemanabad Road	17	—
—	204	Sehora Road	15	—
—	219	Decoree	15	—
—	228	JUBBULPORE	9	—



**CHORD LINE.**  
(Proposed Stations.)

Distances from Howrah.		Stations.	Distances between Stations.	
Branches.	Chord Line.		Chord Line.	Branches.
Miles.	Miles.		Miles.	Miles.
—	138	Seetarampore - - - -	—	—
—	147	Lahurtollah - - - -	9	—
—	156	Jamtarrah - - - -	9	—
—	168	Telkearee - - - -	12	—
—	183	Muddupore - - - -	15	—
Branch to Kurhurballee.				
190	—	Jugdishpore - - - -	—	7
200	—	Mahishmon - - - -	—	10
206	—	Gerhidee - - - -	—	6
—	200	Jesseedee - - - -	17	—
—	216	Semintollah - - - -	16	—
—	228	Newadee - - - -	12	—
—	234	Ghidhour - - - -	6	—
—	244	Mulleypore - - - -	10	—
—	253	Munaunpore - - - -	9	—
—	260	Luckeserai - - - -	7	—

**GREAT INDIAN PENINSULA RAILWAY.**

STATIONS AND DISTANCES UPON THE OPENED LINES.

Distances from Bombay.		Stations.	Distances between Stations.	
Branches.	Main Line.		Main Line.	Branches.
Miles.	Miles.		Miles.	Miles.
—	—	Bombay (Boree Bunder) -	—	—
—	2 $\frac{1}{4}$	Byculla - - - -	2 $\frac{1}{4}$	—
—	4	Chinchpoogly - - - -	1 $\frac{3}{4}$	—
—	5	Parel - - - -	1	—
—	5 $\frac{3}{4}$	Dadur - - - -	3 $\frac{3}{4}$	—
8	—	Mahim - - - -	—	1 $\frac{1}{2}$
—	9 $\frac{1}{4}$	Coorla - - - -	3 $\frac{1}{4}$	—
—	17	Bhandoop - - - -	7 $\frac{1}{4}$	—
—	20 $\frac{1}{2}$	Tanna - - - -	3 $\frac{1}{2}$	—
—	26	Deewa - - - -	5 $\frac{3}{4}$	—
—	33 $\frac{1}{4}$	CALLIAN JUNCTION -	7 $\frac{1}{4}$	—
(North-east Line.)				
—	40	Titwalla - - - -	6 $\frac{3}{4}$	—
—	49 $\frac{1}{4}$	Wassind - - - -	9 $\frac{1}{4}$	—
—	53 $\frac{1}{4}$	Shapoor - - - -	4	—
—	59	Atgaum - - - -	5 $\frac{3}{4}$	—
—	66 $\frac{3}{4}$	Khurdee - - - -	7 $\frac{1}{4}$	—
—	75	Kussara - - - -	8 $\frac{1}{4}$	—
—	84 $\frac{1}{2}$	Egutpoora - - - -	9 $\frac{3}{8}$	—
—	90 $\frac{1}{4}$	Ghotee - - - -	5 $\frac{1}{4}$	—
—	100	Nandoor - - - -	9 $\frac{1}{4}$	—
—	116	Deololee for Nassick -	16	—
—	126	Kheirwadee - - - -	10	—
—	135 $\frac{1}{2}$	Niphar - - - -	9 $\frac{1}{2}$	—
—	146	Lasulgaum - - - -	10 $\frac{1}{2}$	—
—	161 $\frac{1}{2}$	Munmar - - - -	15 $\frac{1}{2}$	—
—	177	Nandgaum - - - -	15 $\frac{1}{2}$	—
—	190 $\frac{3}{4}$	Naidongree - - - -	13 $\frac{3}{4}$	—
—	203 $\frac{3}{4}$	Chalisgaum - - - -	13	—
—	215 $\frac{1}{2}$	Kujgaum - - - -	11 $\frac{3}{4}$	—
—	230 $\frac{1}{4}$	Pachora - - - -	14 $\frac{1}{4}$	—

Distances from Bombay.		Stations—continued.	Distances between Stations.	
Branches.	Main Line.		Main Line.	Branches.
Miles.	Miles.		Miles.	Miles.
—	240	Myjee	9 $\frac{3}{4}$	—
—	247 $\frac{1}{4}$	Mussawud	7 $\frac{1}{4}$	—
—	260 $\frac{1}{4}$	Julgaum	13	—
—	267 $\frac{1}{4}$	Nusseerabad	7 $\frac{1}{2}$	—
—	275 $\frac{1}{4}$	BHOSAWUL	7 $\frac{1}{2}$	—
—	291	Nimbora	15 $\frac{3}{4}$	—
—	309 $\frac{1}{4}$	Boorhaunpoor	18 $\frac{1}{4}$	—
—	321	Chandnee	11 $\frac{3}{4}$	—
—	337 $\frac{1}{2}$	Dongergaum	16 $\frac{3}{4}$	—
—	352 $\frac{1}{2}$	Khundwa	15	—
—	360 $\frac{1}{2}$	Jowrah	8	—
—	373 $\frac{3}{4}$	Beerh	13 $\frac{1}{4}$	—
283 $\frac{1}{4}$	—	Warrangaum	—	8
294 $\frac{1}{4}$	—	Nargaum	—	11
306 $\frac{1}{4}$	—	Mulkapoor	—	12 $\frac{1}{4}$
323 $\frac{1}{4}$	—	Neemgaum and Nandoora	—	17
339 $\frac{1}{4}$	—	Sheagaum	—	15 $\frac{3}{4}$
362 $\frac{1}{4}$	—	Akola	—	23 $\frac{1}{4}$
385 $\frac{1}{4}$	—	Moortizapoor	—	23 $\frac{1}{4}$
411 $\frac{1}{4}$	—	Budnaira	—	25 $\frac{1}{4}$
429 $\frac{1}{4}$	—	Chandoor	—	18 $\frac{1}{4}$
452 $\frac{1}{4}$	—	Poolgaum	—	22 $\frac{3}{4}$
470 $\frac{1}{4}$	—	Wurdah	—	18 $\frac{1}{4}$
490 $\frac{1}{4}$	—	Sindee	—	19 $\frac{3}{4}$
502 $\frac{1}{4}$	—	Boree	—	12
519 $\frac{1}{4}$	—	NAGPOOR	—	17
		(South-east Line.)		
—	33 $\frac{1}{4}$	Callian	—	—
—	41 $\frac{1}{4}$	Budlapoor	8 $\frac{1}{4}$	—
—	53 $\frac{1}{4}$	Narel	11 $\frac{3}{4}$	—
—	62 $\frac{1}{4}$	Kurjut	8 $\frac{1}{4}$	—
71	—	Campoolee	—	8 $\frac{1}{2}$
—	75 $\frac{1}{4}$	Reversing Station	13	—
—	77 $\frac{1}{4}$	Khandalla	2	—
—	79 $\frac{1}{4}$	Lanowlee	2	—
—	89 $\frac{1}{4}$	Kurkulla	10	—
—	98 $\frac{1}{4}$	Tulligaum	9	—
—	108 $\frac{1}{4}$	Chinchwad	10 $\frac{1}{4}$	—
—	115 $\frac{1}{4}$	Kirkee	6 $\frac{3}{4}$	—
—	119 $\frac{1}{4}$	Poona	4	—
—	136 $\frac{1}{4}$	Ooroolee	17 $\frac{1}{2}$	—
—	152 $\frac{1}{4}$	Kheirgaum	16	—
—	160 $\frac{1}{4}$	Patus	7 $\frac{1}{4}$	—
—	167	Dhond	6 $\frac{3}{4}$	—
—	183 $\frac{1}{4}$	Decksal and Bheegwan	16 $\frac{1}{4}$	—
—	195	Poomulwarree	11 $\frac{1}{4}$	—
—	212 $\frac{1}{4}$	Jehwoor	17 $\frac{1}{4}$	—
—	222 $\frac{1}{4}$	Keim	10	—
—	234	Barsee Road	11 $\frac{3}{4}$	—
—	243 $\frac{1}{4}$	Marheh	9 $\frac{3}{4}$	—
—	262 $\frac{1}{4}$	Mohol	18 $\frac{1}{4}$	—
—	282 $\frac{1}{4}$	SHOLAPOOR	20 $\frac{1}{4}$	—

## MADRAS RAILWAY.

STATIONS and DISTANCES upon OPENED LINES.

Distances from Madras.		Stations.	Distances between Stations.	
Branches.	Main Line.		Main Line.	Branches.
Miles.	Miles.		Miles.	Miles.
—	—	SOUTH-WEST LINE.	—	—
—	3 $\frac{1}{2}$	Madras	—	—
—	13	Perambore	3 $\frac{1}{2}$	—
—	17 $\frac{3}{4}$	Avady	9 $\frac{1}{4}$	—
—	25 $\frac{1}{4}$	Tinnanore	4 $\frac{1}{4}$	—
—	29 $\frac{1}{4}$	Trivellore	8	—
—	—	Cudumbathoor	3 $\frac{3}{4}$	—

Distances from Madras.		Stations— <i>continued</i> .	Distances between Stations.	
Branches.	Main Line.		Main Line.	Branches.
Miles.	Miles.		Miles.	Miles.
—	36	Chinnamapett	6½	—
—	42½	ARCONUM JUNCTION	6½	—
—	55¾	Sholinghur	13¼	—
—	65	Arcot	9¼	—
—	73	Theruvollum	8	—
—	80½	Vellore	7½	—
—	88½	Veerinjecpoorum	7½	—
—	95¾	Gooriattum	7½	—
—	105½	Mailputty	9¾	—
—	112¾	Amboor	7½	—
—	122¾	Vaniembady	10	—
—	132	JOLLARPETT JUNCTION	9¼	—
154	—	Coopum	—	22
175½	—	Colar Road	—	21½
192½	—	Malloor	—	16¾
204	—	Cadjoody	—	11½
216½	—	Bangalore	—	12½
—	136¾	Tripatore	4¾	—
—	151¼	Samulputty	14½	—
—	166	Morapoor	14¾	—
—	180	Mullapooram	14	—
—	192¼	Shervaroy Hills	12¼	—
—	206¾	Salem	14½	—
—	219¾	McDonald's Choultry	13	—
—	230½	Sunkery Droog	10¾	—
—	243	Erode, junction with G. S. of I. Railway.	12½	—
—	252¼	Perauduray	9¼	—
—	266½	Wutkallee	14¼	—
—	275	Avenastry Road	8½	—
—	286	Somanoor	11	—
—	301¾	Cimnbatore	15¾	—
—	308	Muddikurry	6¼	—
—	316½	Walliar	8½	—
—	323½	Conjecode	7	—
—	332	Palghaut	8½	—
—	337¾	Purley	5¾	—
—	347	Luckady	9¼	—
—	351½	Wootapollium	4½	—
—	359½	Shoranoor	8	—
—	366¾	Puttamby	7¼	—
—	378¼	Cootipooram	11¾	—
—	387½	Tiroor	9¼	—
—	392½	Tanoor	5	—
—	397½	Perpengady	5	—
—	406¼	Beypoor	8¾	—
—	—	<b>NORTH-WEST LINE.</b>	—	—
—	50½	Arconum Junction	—	—
—	59¾	Tirutany	8	—
—	69¼	Naggery	9¼	—
—	78	Puttoor	9½	—
—	83¾	Poody	8¾	—
—	97¾	Tiruputty	5¾	—
—	109	Ballyputty	14	—
—	121¾	Coodoor	11¼	—
—	129¾	Reddipully	12¼	—
—	136¾	Rajampett	8	—
—	147	Nundalore	7	—
—	162½	Woutimettah	10¼	—
—	176	Cuddapah	16½	—
—	185¾	Camalapoora	13½	—
—	195¾	Yerragoontha	9¾	—
—	210¼	Moodanoor	10	—
—	227¼	Kondipuram	14½	—
—	—	Tadputri	17	—

## BOMBAY and BARODA RAILWAY.

## STATIONS AND DISTANCES.

No.	Distance in Miles from Bombay Churney Road.	Stations.	No.	Distance in Miles from Bombay Churney Road.	Stations.
1	—	Carnac Bunder.	25	134½	Beleemora.
2	—	Churney Road.	26	137	Umulsar.
3	1¼	Bellasis Road.	27	146	Nowsaree.
4	1¼	Grant Road.	28	155½	Sucheen.
5	3½	Parell.	29	164½	Surat.
6	4¾	Dadur Junction.	30	167	Amrolee.
7	5½	Dadur.	31	173½	Sion.
8	7	Mahim.	32	180½	Keem.
9	8	Bandora.	33	189½	Panolee.
10	13	Andaree.	34	195½	Unclesur.
11	15½	Pahadee.	35	201	Broach.
12	20	Dysur.	36	209½	Chumargaum.
13	31	Bassein Road.	37	217½	Palej.
14	36½	Veraur.	38	226½	Meaganm.
15	55½	Palghur.	39	233½	Etola.
16	62½	Boisar.	40	245½	Baroda.
17	75½	Dhanoo Road.	41	257½	Wassud.
18	82½	Golwood.	42	267	Annund.
19	91½	Sunjan.	43	279½	Neriad.
20	98½	Bheelar.	44	289½	Memoodabad.
21	105½	Damaun Road.	45	296½	Berajree.
22	115½	Pardee.	46	307½	Ahmedabad.
23	122	Bulsar.	47	—	G. I. P. Stations.
24	127	Doongree.			

## SCINDE RAILWAY.

## STATIONS AND DISTANCES.

Stations.		Number of Miles.
From	To	
Keamaree	Kurrachee	3½
KURRACHEE (McLeod Road Station).	Frere Street Station	2¼
	Mulleer	12¼
	Dorbajee	34
	JOONGSHALE	53
	Jeempeer	72
	Mayting	85½
	Bolari	97
	KOTREE	105½
Total length of line, including Keamaree Branch, 100 miles.		

## PUNJAUB RAILWAY.

## STATIONS AND DISTANCES.

Stations		Number of Miles.
From	To	
Unrisur	Khassa	8
	Attarce	16
	Jelloo	22
	Moean Meer (L. & U.)	29
	Lahore	32
Lahore	Meean Meer (L. & M.)	36
	Khana	45
	Raiwind	59
	Chunga Munga	76
	Wanradharam	92
	Okarah	112
	Montgomery	135
	Hurrappa	148
	Cheechawutnee	161
	Chunnoo	182
	Khanawalla	209
	Yatteepoor	227
Mooltan	240	
Mooltan	Raj Ghat River Station	246

## EASTERN BENGAL.

## STATIONS AND DISTANCES.

Distance from Calcutta.	Intermediate Distance.	Stations.	Distance from Calcutta.	Intermediate Distance.	Stations.
Miles.	Miles.	Calcutta.	Miles.	Miles.	Aurrunghatta.
—	—		51	5 $\frac{3}{4}$	
4 $\frac{1}{2}$	4 $\frac{1}{2}$	Dum-Dum.	57 $\frac{1}{2}$	6 $\frac{1}{2}$	Buggoolah, W.G.
7	2 $\frac{3}{4}$	Bailgurriah.	65	7 $\frac{1}{2}$	Kissengunge.
9 $\frac{3}{4}$	2 $\frac{3}{4}$	Sodepore.	69	4	Muttearee.
14	4 $\frac{1}{2}$	Barrackpore, W.	74 $\frac{1}{2}$	5 $\frac{1}{2}$	Ramnuggur.
16 $\frac{3}{4}$	2 $\frac{3}{4}$	Echapore.	77 $\frac{3}{4}$	3 $\frac{1}{2}$	Joyrampore.
18 $\frac{1}{2}$	1 $\frac{3}{4}$	Samnuggur.	83 $\frac{1}{2}$	5 $\frac{3}{4}$	Choodangah, W.G.
23 $\frac{1}{2}$	5	Nychauttee.	89	5 $\frac{1}{2}$	Moonsheegunge.
28	4 $\frac{1}{2}$	Kanchraparah, W.G.	93 $\frac{1}{4}$	4 $\frac{1}{4}$	Allumdangah.
33	5	Mudunpore.	98 $\frac{1}{2}$	5 $\frac{1}{4}$	Halsha.
38 $\frac{1}{4}$	5 $\frac{1}{2}$	Chogdah.	102 $\frac{3}{4}$	4 $\frac{1}{2}$	Purodah.
45 $\frac{1}{4}$	7	Ranaghat.	112	9 $\frac{1}{4}$	Kooshtea.

## GREAT SOUTHERN OF INDIA RAILWAY.

## STATIONS AND DISTANCES UPON OPENED LINE.

Distance from Negapatam.	Stations.	Distances between Stations.
Miles.		Miles.
—	Negapatam	3
3	Sickle	4
7	Keevalore	7
14	Trivalore	4
18	Kulikery	7
25	Kordachary	5
30	Needamungalum	6
39	Ammappettah	3
36	Saliamungalum	10
49	Panjore	10
59	Boodalore	15
74	Peroovembore	8
82	Trichinopoly	9
91	Ellamanore	12
103	Kulitalay	6
109	Lalapettah	7
116	Cuttalay	11
127	Caroor	9
136	Pogalore	8
144	Cudumudy	12
156	Passoor	12
168	Erode	—

## OUDE AND ROHILKUND RAILWAY.

## STATIONS and DISTANCES upon opened LINE between Lucknow and Cawnpore (42 Miles).

Miles from Lucknow.	Stations.	Distances between Stations.
—	Lucknow	—
13 $\frac{1}{4}$	Harownee	13 $\frac{1}{4}$
23 $\frac{1}{4}$	Ajgaen	10
33 $\frac{1}{4}$	Oonso	9 $\frac{1}{4}$
42	Cawnpore	8 $\frac{1}{4}$

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