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# REPORT.

To the Most Honourable the MARQUIS of SALISBURY, Secretary of State for India.

MY LORD MARQUIS,

India Office, 15th June 1875.

I HAVE the honour to lay before your Lordship my usual Annual Report, describing the progress which has been going on during the year 1874 in the development of the railway system of India, both as regards its expansion and working.

2. An addition of 558 miles was made to the 5,715 which were open at the beginning of the year, extending the length of railway now open in India to 6,273 miles. Of these 727 are double and 5,546 single; 5,686 are constructed on the 5' 6" gauge and 587 on the metre gauge. General progress.

3. The works completed during the year consist principally of 200 miles of the Rajpootana State Railway, which is being constructed on the metre gauge; the Nizam's line, 128 miles in length, from Goolburga, on the Great Indian Peninsula Railway, to Hyderabad and Secunderabad; 57 miles of Holkar's Railway from Indore to Khundwa, and 84 miles of the Oude and Rohilkund system, which is now open for 540 miles.

4. The works on this last-mentioned line comprise two important bridges, one over the Ganges at Rajghat, on the Allyghur branch, and the other over the Ramgung River, four miles west of Bareilly. The bridge over the Ganges at Cawnpore is expected\* to be shortly opened. It has been an undertaking of great difficulty, but the various obstacles which occurred have been overcome under the skilful superintendence of the Engineer in charge, Mr. Newton. Good progress is also being made with the South Indian Railway, a considerable length of which will be completed in the course of the present year. The works on the Neemuch State Railway are also going on slowly but satisfactorily.

5. As soon as the decision to alter the gauge for the Indus Valley Railway was known in India steps were taken for giving effect to it. Lieut.-Colonel E. C. S. Williams, R.E., Director of State Railways, immediately visited the line and arranged with the Engineer-in-chief how the change should be carried out. It is expected that, if sufficient funds are available, the line may be opened as follows; viz., from Kotree to Sunn River, 60 miles, in 1875, from thence to Sukkur, 162 miles further, in 1877, and for the rest of the way to Moulton, 216 miles more, by June 1878. Two large bridges have to be executed, one spanning the Indus at Sukkur, the other crossing the Sutlej near Bhawalpore. Indus Valley Railway.

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\* Since this was written the last girder has been rolled on, and the bridge has been tested and pronounced ready for traffic.

6. The following table gives the length of each separate undertaking and the extent opened :—

Railway.	Gauge.	Length of Line.	Length opened during 1874.	Total Length opened.	Portion laid with Double Line.	Length remaining to be finished.
East Indian	5' 6"	Main line	—	1,280	414½	—
		Jubbulpore line	—	223½	—	—
Great Indian Peninsula	5' 6"	1,278½	—	1,278½	287	—
Madras	5' 6"	857½	—	857½	—	—
Bombay, Baroda, and Central India	5' 6"	428½	17	428½	23	—
Scinde, Punjab, and Delhi	5' 6"	667	—	667	—	—
South Indian	3' 8½"	610½	—	186	—	424½
Eastern Bengal	5' 6"	158½	—	158½	2½	—
Oude and Rohilkund	5' 6"	696	84	532	—	158
Nulhattee	4' 0"	27½	—	27½	—	—
Calcutta and South-eastern	5' 6"	28	—	28	—	—
Northern Bengal (to Darjeeling)	3' 3½"	210	—	—	—	—
Punjab Northern	—	329	—	—	—	329
Indus Valley	5' 6"	493	—	—	—	493
Rajpootana	3' 3½"	Agra and Delhi to Ajmere	201	291	—	105
		Ajmere to Nussurabad and Indore	—	—	—	—
Indore to Khundwa (Holkar's)	3' 3½"	86½	57	57	—	28½
Patree branch of Bombay, Baroda, and Central India Railway	5' 6"	22	—	22	—	—
Wurda Valley	5' 6"	45	18	33	—	12
Tirhoot	3' 3½"	53	58	53	—	—
British Burmah	3' 3½"	160	—	—	—	160
BERAR.						
Khamgaon	5' 6"	7½	—	7½	—	—
Oomrawattee	5' 6"	5½	—	5½	—	—
NIZAM'S GOVERNMENT.						
Goolburga to Hyderabad and Secunderabad	5' 6"	128	128	128	—	—
Total		8,640½	558	6,272½	727	2,158

7. The additions which have been made to this list since the last report was issued are—(1) the line from Rangoon to Prome, in British Burmah, which your Lordship sanctioned in October last, after being satisfied that the expectations of its "direct remunerativeness" were "completely borne out" by the statistics of trade and traffic which were forthcoming; and (2) the line extending north from Indore to Neemuch and Ajmere to join the railway there from Agra and Delhi.

Annual progress.

8. The following statement exhibits the annual progress gradually made in the construction of railways since their commencement :—

Railways.	Length of Line open at the end of each Year.																						
	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	
East Indian Rail- way (including Jubbulpore).	—	87½	130½	120½	120½	141	284½	367½	500½	683½	897	1,106½	1,129½	1,139½	1,353½	1,353½	1,353½	1,503½	1,503½	1,503½	1,503½	1,503½	1,503½
Great Indian Peninsula. Madras	21½	34½	50½	88½	88½	104½	245½	297½	437½	494½	553	665½	701½	815½	852	876½	876½	1,239½	1,365½	1,378½	1,378½	1,378½	1,278½
Bombay, Baroda, & Central India. Scinde	—	—	—	—	—	—	—	35	133	185	185	305½	305½	305½	305½	305½	305½	310½	346½	380½	380½	380½	400½
Punjab	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Great Southern of India, now South Indian. Carnatic, now South Indian. Eastern Bengal.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onde and Rohil- kund. Calcutta & South- eastern. Nulhatoo	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Khamgaon	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Oomrawuttee	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rajpootana	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Indore	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pattee branch to Bombay, Baroda, & Central India. Wurda Valley	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tirhoot	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hyderabad	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	81½	72	171	274½	280½	430½	624½	896½	1,581½	2,351½	2,516½	2,969½	3,368½	3,568	3,937½	4,017½	4,287½	4,833½	5,078½	5,383½	5,700	5,700	6,250½

9. In the last report the decision of your Lordship that the Indus Valley Railway should be constructed on the standard gauge of 5 ft. 6 in. was recorded, and it was also mentioned that the line between Lahore and Peshawur would be constructed on the same gauge "if considerations derived from the advanced state of the works" should not, in the opinion of the Viceroy, make this course inexpedient. By a resolution passed by the Governor-General in Council on the 3d August last, it was decided that the Punjab Northern Railway should be constructed on the 5' 6" gauge, light rails being used, and certain works being so executed in the first instance as to be capable of being subsequently strengthened and made uniform in all respects with the Indus Valley line. The large bridges over the Ravee, the Chenaub and Jhelum have chiefly occupied the attention of the Engineers during the past year, these being the most important links in the whole line: but preparations for opening the narrow gauge line on the grand trunk road, pending the formation of a separate bank for the broad gauge, and the arrangements for the formation of this new bank, were also rapidly pushed forward. So was the work of examining the country north of the Jhelum for a line apart from the trunk road. The narrow gauge temporary line was opened for traffic from Lahore to Wuzeerabad towards the end of last year.

Gauge of  
Northern  
Punjab  
Railway.

10. It has unfortunately become almost a regular task each year to describe the disastrous effects of the rains upon the railway works. The floods of last season were unusually severe, but the only line which suffered serious damage was the Madras. On a section of the North-west line, extending 110 miles, between Gooty and Rajampett, the inundations and torrents swept everything before them. The four large bridges which spanned the Paupugnee, the Cheyair, the Chittravutty, and the Pennair rivers, most of them constructed of girders supported on iron screw piles, were either wholly or partially destroyed. These rivers and their feeders are dry for many months in the year, but in the monsoon they swell to the width of from a quarter to three quarters of a mile, and when the rainfall is like that of October last, they rush with irresistible force and scour the beds to a great depth when any obstruction occurs in their course. The Paupugnee bridge consisted of ten 140 feet iron girders placed on 19 piers at distances of 70 feet apart. The whole length was thus 1,400 feet. It was broken in several places. The current was estimated by persons on the spot who witnessed it to be running at a rate of 40 miles an hour. On the South-west line also considerable damage

Flood  
damages.

was done. Five arches of the Goriattum bridge were broken, and a road bridge over the Palaar river near Vellore was destroyed. In consequence of these disasters the traffic was altogether stopped for 10 days on the South-west and 23 days on the North-west line; and on the latter, although it was afterwards carried on by temporary arrangements, direct railway communication was not restored for 12 weeks. The measures to be taken for rebuilding the bridges and placing them beyond the influence of future floods have been fully considered by the Government and Railway Company's Engineers in India, as well as by Sir John Hawkshaw, the Company's Consulting Engineer in England, and are now being carried out.

11. The chief causes of failure were insufficiently deep foundations in the bed of the rivers and inadequate waterway. The remedial measures will consist of protective works formed with walls, curtain walls, stone pitching and rubble stone, and in some cases of large additions to the waterway. The cost of these restorations may be roughly estimated at 200,000*l*.

12. The new works on the Oude and Rohilkund Railway were severely tried but not much damaged by the rains of September, which are described as "unprecedented" in those provinces. This expression must, I think, be used, however, without sufficient ground, and strictly speaking is more properly applicable to the serious and novel effects produced than to the actual rainfall. Although, as is stated, the enormous fall of 9½ inches took place in one district between 9 p.m. and 7 a.m., and the Ganges at Cawnpore rose 9 inches higher than has been recorded, there is nothing to lead to the supposition that such a downfall never occurred before. It is only matter for regret that here, as in other places, the information was so imperfect that the Engineers were not forewarned. It was fortunate that the floods of the Indus last year were greater than had ever been remembered or recorded, as those entrusted with the construction of the railway along that valley will be furnished with data to enable them to judge how much waterway is necessary. Bengal was also visited by severe floods and storms. In the districts traversed by the Eastern Bengal Railway the waters rose as high as in 1871, when much damage was done to the embankments, but the precautions taken in consequence of that warning had the desired effect, and last season the works did not suffer.

13. In connexion with the subject of waterway, the subjoined statement which has been received from India, giving the length and dimensions of the principal railway bridges throughout the country, will be of interest.

STATEMENT of COST and of some of the DIMENSIONS of the largest BRIDGES on RAILWAYS in INDIA.

Railway.	Name of Bridge.	1. No. of Spans.	2. Length of Bridge.	3. Depth of Foundation below Low Water.	4. Height from Low Water Level to under side of Girders.	5. Total Cost.	6. Cost per Linear Foot.	REMARKS.
East Indian	Jumna (Allahabad).	14	Feet. 3,080	Feet. 40	Feet. 60	Rs. 40,75,800	Rs. 1,323	Ten wells in foundations of piers, which are of stone masonry, for a double way, but girders for a single way only yet laid. Common roadway 11 feet 6 inches wide in the clear between the girders. Railway on top of girders.
"	Soane	23	4,530	33	37.6	26,10,167	575	Double line over this bridge, with footway between girders 5 feet 8 inches wide in the clear. Rails on top of girders. Total cost Rs. 37,67,473, or Rs. 800 per foot, nearly.
"	Jumna (Delhi)	13	3,640	7 to 39	23.5	10,60,354	629	Actual cost. Ten wells in foundations of piers, which are not dressed with stone masonry. Substructure for a double line with girders for a single way on top, with a common roadway between the girders 11 feet 6 inches wide in the clear.
Scinde, Punjab, and Delhi.	Jumna (Saharunpore).	24	2,605	48	19	15,34,800	500	The contract rate was Rs. 428 per foot, but extensive additions have since become necessary, and the figures shown are the total estimated costs, including the protection works at piers and abutments, exclusive of the cost of the bunds and training works, which are estimated as follows—Beas, Rs. 3,00,121; Sutlej, Rs. 2,63,850; Jumna, Rs. 1,92,338. Piers are on single wells 13 feet 6 inches diameter.
"	Sutlej (Loodiana).	59	6,466	40 to 50	17.5	31,06,076	481	
"	Beas	34	3,820	43 to 70	21	22,90,366	600	
Eastern Bengal	Goriae Bridge	7	1,295	73 to 96	51	} 10,95,009	970	Actual cost for a single railway. Each pier consists of two iron cylinders surmounted by cross girders, on which there is room for another pier of girders for doubling the line. The approaches cost 3 lakhs. Deducting approaches, the cost per foot is Rs. 1,077.
"	Approaches to Goriae Bridge.	11	468	25	Dry at low water			

Large bridges.

Railway.	Name of Bridge.	1. No. of Spans.	2. Length of Bridge.	3. Depth of Foundation below Low Water.	4 Height from Low Water Level to under side of Girders.	5. Total Cost.	6. Cost per Lineal Foot.	REMARKS.	
*Oude and Rohilkund.	Ganges (Cawn- pore).	25	Foot. 2,750	} 50 to 65	Foot. 31-86	Rs. 19,40,000	Rs. 685	Estimated cost. One well of 16 feet and one of 10 feet in pier. Railway over roadway between the girders.	
"	Land Spans	2	80						
"	Ganges (Rajghat)	33	3,040		55	24-59	9,63,580		317
"	Geontee (Joun- poor).	16	1,472	45 to 50	44-17	9,00,000	611	Estimated cost for broad gauge. Two wells of 16 feet in pier foundation. Railway between the girders.	
"	Ramcunga (Ba- rcilly).	36	2,376	85	25-77	10,74,000	462	Estimated cost for broad gauge. Wells of 18 feet and 14 feet in pier foundation. Single cylinders. Railway on top of the girders.	
Madras	Vetunoo (South)	20	1,350	Average 19	127-5	3,33,089	206	Piers 3 and 5, iron pile column (double). Pier 3, iron piles (double). Pier 4, piles, single roadway. The abutments are built of masonry for a double line, and screw pile breast piers for a single line. Each pier consists of two groups of piles, a group being formed of five piles braced and surmounted by a strong iron casting, over which the openings are spanned by plate girders. Permanent way for single line. The two abutments, first ten and last ten piers, are built of masonry for a double line, and founded on wells to an average depth of 12 feet below river bed. The remaining 19 piers are of screw piles treated similar to the Paupugnee, and carried to 30 feet below river bed. Permanent way for single line. Abutment and piers of masonry for double line. Foundation of abutments and six piers on each side are solid, carried down to an average depth of 12 feet below river bed, and remaining 11 piers in the centre are founded on wells to an average depth of 11 feet below river bed. Permanent way for single line. Actual cost.	
"	" (North)	23	1,437	" 17	127-5	3,80,887	266		
"	Parr	14	875	" 16	167-5	2,84,616	325		
"	Paupugnee	20	1,400	Average depth of piles below river bed is 15 feet.	19-5	1,62,255	116		
"	Chitrawutty	40	2,800	12 and 30 feet deep.	20	3,54,705	137		
"	Ponnair	24	1,680	11 and 12 feet deep.	21	1,79,525	103		
Great Indian Peninsula.	Kistna	36	3,865	Average 15-69	146-51	12,30,001	351		
"	Tupteo (Bhos- wul).	33	2,556	" 17-30	167-38	13,64,900	534	Actual cost, double line.	
"	Cauvery	22	1,536	Shallow on rock.	36	4,08,752	206	Actual cost, single line over masonry piers built for a double line.	
"	Toongabudra	58	4,060	" "	37	7,55,758	186		
"	Guerrah (Shah- hanpoor).	18	1,308	70 to 80	17-49	4,50,000	343	Estimated cost for broad gauge. Piers on one circular well, 14 feet diameter. Wrought-iron plate girders with rails on top.	
"	Saic (Jounpoor)	18	1,192	38 to 41	44-75	7,00,000	387	Estimated cost for broad gauge. Piers on two circular wells, 18 feet diameter. Abutments open foundations. Rail- way between girders.	
"	Mhy Mhy	27	1,087	Average 24	175-5	—	—	Piers of five iron piles.	
"	Bheema	23	1,317	Uncertain	146-7	2,60,128	197	Double line masonry.	
"	Cauguee	34	2,216	" "	133-5	7,90,888	357	Sixteen 75 feet girders for single line. Six 60 feet girders for single line, 12 30 feet land. Masonry arches for double line.	
"	Foun	6	1,144	Average 16	176	16,51,132	1,443	Double line. Four 196 feet and two 127 feet girder openings.	
"	Nerbudda (Jub- bulpoor).	11	1,056	9	70-33	6,12,463	580	Five 140 feet girders for single lines. Six 40 feet masonry arches for double line.	
Bombay, Baroda, and Central India.	Tupteo (Surat)	30	1,376	Average 14	153	8,95,260	407	Actual cost for a double way. Three iron piles in each pier.	
"	Nerbudda (Broach)	67	4,187	" 37	148-5	46,93,490	1,167	Actual cost for a double way. Five iron piles in each pier, with a cluster of 10 in every sixth pier.	
"	Saburmuttee	18	1,125	" 31	138-5	3,69,859	360	Actual cost. Single line piers of two iron piles.	
"	Bassein (South)	69	4,312	" 42	127-5	16,49,361	333	Piers of 3 and 4 iron piles. Double road.	
"	" (North)	25	1,562	" 36	127-5	5,59,896	368	Do. do.	
Rajpootana (State).	Jumna (Agra)	16	2,272	70	31-66	16,54,203	728	Estimated cost. Three wells in founda- tions of piers, which are of stone masonry, and carry girders for a single railway, both broad and nar- row between, and common roadway on top.	
Punjab (Northern).	Ravee (Lahore)	33	3,217	75	20	10,19,220	307	Estimated cost, without training works, for a narrow gauge railway. Three wells in foundations of piers, which are of brick masonry.	
"	Chenab	64	9,958	75	20	46,78,924	515	Do. do.	
"	Jhelum	50	4,375	30	20-75	15,51,408	319	Do. do.	
"	Sutlej (Bhawul- poor).	16	4,224	100	Minimum of 30.	38,85,780	920	Do. do.	

\* The figures for the bridges on the Oude and Rohilkund Railway are only approximate, and subject to revision.

† Height of roadway above low water.

N.B.—With the exception of the Cauvery and the Toongabudra, the cost of engineer and general establishment is not included in the above. If it were, the total cost would be increased from one-eighth to one-fourth more, according to circumstances of time and place.

14. Another example of the difficulties arising from the action of water exists at Goalundo, the northern terminus of the Eastern Bengal Railway, where it has been found necessary to incur considerable expense in fortifying the station against the encroachments of the river Ganges. The works erected for this purpose, as described by Col. F. S. Taylor, R.E., Consulting Engineer to the Government of Bengal, "consist of a single spur formed of rubble stone and large concrete blocks, protected by a massive apron of stone, laid in 60 feet of water. This spur has been

Action of rivers at Goalundo.

“projected 500 feet into the stream, and its connexion with the shore has been made by an embankment of brick ballast, with a clay hearting.” The effect of these precautions was watched with much interest during the floods of 1874. It was found at the close of the season that the end of the spur had subsided considerably, but that it had curbed the force of the stream which had been diverted 300 feet from the south bank. This was considered by Mr. Bradford Leslie, who examined the work with Mr. Benedict, the chief engineer of the railway, a satisfactory result, and their recommendation that the spur should be re-formed at the end and generally strengthened has been partially approved by the Government. This will, it is estimated, involve a further expenditure of 26,000*l.*, the cost of the works hitherto having been about 95,000*l.* It is hoped that this important station, which but for the eroding action of the two great rivers, the Ganges and Brahmapootra, which here meet, is so well situated for the traffic coming to the railway from the northern districts of Bengal, will now be permanently secured from all danger.

Railways and  
the famine.

15. The part that railways played in the great event of the year must not be passed by in silence. It may safely be asserted that without their aid the exertions of Government to supply the famine-stricken districts with the requisite amount of food would have been ineffectual. Praise has justly been bestowed upon the agents and officers of the three railway companies, which were engaged in the duty of conveying grain, for the regularity, expedition, and safety with which the enormous traffic was conducted, and the various arrangements made for handing over the supplies to the Government officers were carried out. The daily despatches from Howrah averaged 2,200 tons. The total quantities delivered by the railways were 306,697 tons of grain, 440,886 tons of rice, and 95,113 tons of pulses, of which 616,993 tons were conveyed by the East Indian Railway from Calcutta, 170,490 by the Scinde, Punjab, and Delhi Railway from the North-West, and 53,370 by the Great Indian Peninsula from the Central Provinces. It is estimated that about 80,000 were also carried by the Eastern Bengal Railway. The rest came from Oude and Rohilkund and from Rajpootana. Of the whole 842,696 tons, 479,696 were purchased by Government, and 363,000 by private traders.

16. The value of railways in such an emergency as that under consideration was fully acknowledged by the Government, who also bore testimony to the energy and judgment displayed by their officers in performing the onerous duty of providing food to the famishing multitudes at the right time and at the proper places.

17. The following extracts from a resolution by the Government of India, dated Calcutta, the 18th February 1875, bearing on the subject, may here be introduced:—

“Great advantage was derived from the arrangement made to reduce at once the rates for the carriage of grain by railway, the difference being paid to the railway companies by the Government. The effect of this measure was to stimulate the importation of grain by railway into the distressed districts; but, owing to the great distance to be traversed and the necessity to traders of quick conveyance in order to secure the profit offered by the rise in prices, this advantage given to the railways did not materially injure the river trade, which is slow, and, moving in regular course, does not readily adapt itself to a sudden demand.

“The traffic arrangements of the East Indian Railway Company showed the power of the company to meet the strain of a very large additional traffic within a limited time. It is not too much to say that the relief operations could not have been successful, had it not been for the trunk line of railway, which, passing through Behar, unites Calcutta with the Punjab. An additional proof has thus been afforded of the wisdom of the measures for railway construction in India which were commenced by the Marquis of Dalhousie, and have since been steadily prosecuted.

“The manner in which the grain was conveyed from the railways to the places where it was required has afforded a remarkable instance of the great resources of the country in wheeled conveyance, and of the facility with which they may be brought to bear by the offer of profitable rates of hire. The Government of India entirely approved of the contracts made, at Sir Richard Temple’s recommendation, for the transport of rice to North Behar. The cost was great, but the danger was not exaggerated. The immediate superintendence of the transport, when it assumed its full dimensions, was entrusted to officers of the army, and the manner in which this duty was performed shows the confidence which may be placed in the efficiency with which such transport would, if necessary, be brought to bear upon military operations.”

The special acknowledgments of the Government of India were conveyed to Col. F. S. Taylor, R.E., the Consulting Engineer, and to Captain Wallace, R.E., and Lieut. Bisset, R.E., Deputy Consulting Engineers, for the successful way in which they performed the "exceedingly arduous and responsible" work which devolved upon them, and for the cordial manner in which they co-operated with the officials of the railway company. The Viceroy in Council also congratulated the Members of the Board of Agency of the East Indian Railway Company, Mr. Cecil Stephenson and Mr. G. Sibley, "on the highly successful termination of their labours in providing for the despatch of supplies of food grain to the "distressed districts," and requested them to convey to Mr. J. C. Batchelor, the traffic manager, to Mr. D. W. Campbell, the locomotive superintendent, and the other officers of the company who were engaged at the time of the great strain upon the resources of the line, the thanks of the Government of India for their services. In like manner were recognised the services of Mr. Franklin Prestage, the agent of the Eastern Bengal Railway, and those of Mr. Joseph Harrison, the acting agent and chief engineer of the Punjab and Delhi Railway, and their respective assistants and staffs.

18. I may also be permitted to quote the following portions of the Minute of Sir Richard Temple, K.C.S.I., the Lieutenant Governor of Bengal, on the services of officers employed under him, in the Railway Department, during the famine relief.

"The construction of the temporary line from the Ganges to Durbhunga (fifty-three miles of length, opened only after fifty-three days' work) was an extraordinary achievement in respect to speed. To carry the line over a country intersected by three considerable streams; to make it strong enough to carry 2,000 tons in a day; to open it within the prescribed time, demanded primarily an indefatigable energy, but also professional skill and administrative ability. All these qualities were displayed by Major F. S. Stanton, R.E., the Engineer-in-chief. Having thus made the line, he worked its heavy State traffic with the same efficiency.

"In this race of work against time, the officer whom he termed his right-hand man was Lieut. W. H. Rathborne, R.E., whose endurance and ability were conspicuous.

"Major Lindsay was Engineer-in-chief of the Northern Bengal State Railway, the commencement of which was undertaken as a relief work. The railway was designed before the famine was apprehended, and will continue to be prosecuted. Throughout the famine he showed every desire to render the railway work useful for purposes of relief. He also undertook several "feeder" roads, that is roads leading from the interior to the sites of railway stations, the labour on which roads afforded employment to the distressed poor.

"The members of the Engineering staff on this line had to keep the works open for all comers during the most insalubrious months of the year, in a country flooded in the rainy season. They were in consequence all prostrated more or less by sickness. Among them the following officers have earned commendation for their conduct:—Mr. W. B. Carter, Superintendent of Works; Mr. T. M. Vigers, Superintendent of Works; Mr. H. W. Henderson, Executive Engineer (who employed many thousands on the railway feeder roads under his charge); Mr. J. M. Luff, Executive Engineer (who also performed much useful grain transport work."

#### PROCEEDINGS IN THIS COUNTRY.

19. The amalgamation of the Great Southern of India and the Carnatic Railway Companies, under the name of the South Indian Railway Company, has been satisfactorily carried out in pursuance of the Act which passed last session, and the new Company is working well.

Amalgamation of Great Southern and Carnatic Railways.

20. The duties which have to be performed in this country in connexion with the railways have been discharged with regularity and despatch. The following tables relate to some of the work which has been done, but one of the most important duties executed at home is the general superintendence which embraces a thorough examination of results. The working of every department of each undertaking should be carefully investigated and compared. Thus weak points in one may be discovered and the success of another may be proved, furnishing examples to follow or avoid.

Proceedings in this country.

21. It will be seen by the following tables that 156,636 tons of materials, exclusive of coal, have been shipped for the various lines during the past year, and that 108,478 tons of fuel have also been despatched. The gradual development of the

Shipping operations.



coal resources of India which is now going on will reduce this latter item in future years. Five ships were lost during the year; one with goods for the East Indian Railway, valued at 1,632 $\frac{1}{2}$ ., three with coal for the Bombay, Baroda, and Central India Railway, of the value of 9,454 $\frac{1}{2}$ ., and one with stores for the Government, valued at 6,149 $\frac{1}{2}$ .. All were insured but the last.

SHIPPING OPERATIONS, exclusive of Fuel, during 1874 on Account of the Guaranteed and State Railways.

Railway.	Number of Ships employed in 1874.	Number of Tons of Goods shipped in 1874.	Value of Goods shipped in 1874.	Amount paid for Freight and Insurance in 1874.	Average Rate of Freight and Insurance per Ton.
		Tons.	£	£	£ s. d.
East Indian	37	2,977	82,005	7,098	2 7 7
Great Indian Peninsula	40	9,393	74,862	18,613	1 19 8
Madras	37	3,588	47,880	7,372	2 1 1
Bombay, Baroda, and Central India	27	2,256	29,916	5,270	2 6 9
Scinde, Punjab, and Delhi	15	2,708	44,419	7,848	2 17 11
South Indian	50	44,622	378,027	72,978	1 12 8
Eastern Bengal	12	171	2,171	223	1 6 0
Oude and Rohilkund	21	3,168	93,401	6,662	2 2 1
State Railways	189	87,753	1,139,882	147,532*	1 13 9*
<b>Total</b>	<b>428</b>	<b>156,636</b>	<b>1,892,552</b>	<b>283,596</b>	

\* Without insurance.

AMOUNT and Cost of COAL and other FUEL sent out from this Country in 1874.

Railway Company.	Number of Tons supplied from England.			Total original Cost.			Sum paid for Freight and Insurance.	Average Cost of each Ton when bought in England.			Average Cost of each Ton delivered in India.		
	Of Coal.	Of Coke.	Of Patent Fuel, &c.	Of Coal.	Of Coke.	Of Patent Fuel, &c.		Of Coal.	Of Coke.	Of Patent Fuel, &c.	Of Coal.	Of Coke.	Of Patent Fuel, &c.
East Indian*	200	556	—	£ 240	£ 1,252	£ —	£ 1,492	s. d. 24 0	s. d. 45 0	—	s. d. 57 6	s. d. 86 6	—
Great Indian Peninsula	55,681	—	—	45,246	—	—	87,169	16 3	—	—	47 6	—	—
Madras	11,360	860	799	10,058	731	699	23,348	17 8	17 0	17 6	49 1	54 3	45 5
Bombay, Baroda, & Central India.	34,539	—	2,914	81,378	—	6,769	Included in price.	—	—	—	47 2	—	46 5 $\frac{1}{2}$
South Indian	1,469	—	—	1,094	—	—	1,420	34 3	—	—	38 3	—	—
Eastern Bengal	—	100	—	122	—	—	79	—	24 6	—	—	40 0	—
<b>Totals</b>	<b>108,249</b>	<b>1,516</b>	<b>3,713</b>	<b>133,133</b>	<b>1,983</b>	<b>7,468</b>							

\* For foundry purposes.

SHIPMENTS FROM THE COMMENCEMENT.

Period.	Number of Ships employed.	Number of Ships lost.	Number of Tons of Goods shipped.	Amount paid in England for Goods shipped.
Up to end of 1860	2,605	39	2,094,686	10,431,976
In 1861	407	—	181,621	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
" 1869	455	1	211,750	1,432,784
" 1870	461	1	263,449	1,688,209
" 1871	307	6	168,049	707,765
" 1872	318	1	66,534	655,822
" 1873	404	2	201,590	1,561,602
" 1874	426	5	265,114	2,042,136
<b>Total</b>	<b>8,074</b>	<b>75</b>	<b>4,893,535</b>	<b>33,140,453</b>

22. The manner in which the 95,119,119 $\frac{1}{2}$  of capital issued by eight companies under the "guarantee" is held, will be seen by the subjoined statement. The remarkable feature of the return is the small number of shareholders in India, especially of natives. Shareholders.

Railway.	Number of Shareholders on 31st December 1874.						Number of Debenture Holders.		Total Number of Proprietors on the 31st December 1874.
	Registered in England.			In India.			Bond.	Stock.	
	With Stock or Shares to the Amount of 1,000 $\frac{1}{2}$ and upwards.	With Stock or Shares of less Amount than 1,000 $\frac{1}{2}$ .	Total in England.	Europeans.	Natives.	Total in India.			
East Indian - - - - -	7,045	8,181	15,226	125	168	293	872	885	17,276
Great Indian Peninsula -	5,518	7,529	13,047	134	147	281	585	1,452	15,315
Madras - - - - -	3,101	4,098	7,199	—	—	—	194	—	7,393
Bombay, Baroda, and Central India	2,360	3,821	6,181	13	40	53	*248	—	6,477
Scinde, Punjab, and Delhi - - - - -	3,409	5,221	8,630	72	13	85	—	—	8,715
South Indian - - - - -	919	1,502	2,421	—	—	—	—	127	2,548
Eastern Bengal - - - - -	654	982	1,636	24	22	46	55	151	1,888
Oude and Rohilkund - - -	1,044	1,413	2,457	80	26	106	†—	125	2,688
Total - - - - -	24,050	32,747	56,797*	448	416	864	1,899	2,740	62,300

\* One allotment of 200,000 $\frac{1}{2}$  is represented by one out of this number.

† The bonds issued by this company being payable to "bearer," and transferable, no record of the number of holders exists.

#### PERSONS EMPLOYED ON THE RAILWAYS.

23. It will be seen by the following tables that, on the 30th September 1874, the total number of persons employed on the railways amounted to 101,595, of whom 96,013 were natives, 3,239 Europeans, and 2,343 East Indians. This number is 25,934 in excess of last year, while the mean open mileage has increased from 5,464 to 6,020. On the East Indian alone the number rose from 21,615 to 35,676, owing, no doubt, to the great additional work in connexion with the grain traffic to the districts where scarcity prevailed. The cause being temporary, a reduction will have since been made.

Railway officers and servants.

24. Endeavours are being made to employ natives and Indian-born more generally, and to train them to the duties of mechanics, platelayers, and fitters. In some cases considerable success has attended the attempt. There is more difficulty in making them engine-drivers and shunters, but examples exist to show that the necessary qualifications for these duties may, with proper training and practice, be attained.

25. It appears by a classified return of persons employed on the Great Indian Peninsula Railway, that out of 180 drivers in the service of the Company on the 31st December last, 163 were Europeans, 12 East Indians, 4 Parsees, and 1 African. Out of 99 firemen, 52 were Europeans, 22 East Indians, 3 Portuguese, 18 Parsees, 3 Africans, and 1 Hindoo. Where mechanical work only is required the natives are employed in greater numbers. For instance, out of 509 fitters, 116 were Hindoos, 145 Parsees, 93 Mussulmans, and 59 Europeans. Out of 966 carpenters, 620 were Hindoos, 113 Portuguese, 150 Parsees, and only 3 Europeans. Some idea of the economy that would result from the more extended employment of natives may be gathered from the fact that while the average amount of wages per month earned by Europeans in the locomotive department was 127 Rs., say 12 $\frac{1}{2}$  10s., the average received by Hindoos was 22 Rs. or 2 $\frac{1}{2}$  4s., by Mussulmans 19 Rs. or 1 $\frac{1}{2}$  18s., by Chinese 32 Rs. or 3 $\frac{1}{2}$  6s., by Parsees 38 Rs. or 3 $\frac{1}{2}$  16s., by East Indians 65 Rs. or 6 $\frac{1}{2}$  10s.

26. On the Madras line many East Indians are employed in the capacity of shunters, engine-drivers and firemen. Col. White, Consulting Engineer to the Bombay Government, says, after a visit to the Madras line, "that a good class of men can be raised out of the native labourer fit for even higher duties, is shown by the fact that at the Madras Terminal Station, all the shunting operations are conducted by a native, drawing Rs. 75 a month, who has risen from the position of a porter." On the East Indian also natives are being employed as shunters with great success, and native guards are also being introduced.

27. I may mention that on the Oude and Rohilkund Railway the novel arrangement of employing female servants as ticket collectors and attendants on carriages reserved for women has been adopted with success.

Education of  
European  
children.

28. Schools are established for the children of the European servants, but I have only received particulars of those which are associated with the East Indian Railway. On this line there are 18 schools receiving aid from the Company and grants from the Government. Mr. Campbell, the Locomotive Superintendent, who has had the management of these schools for several years, reports that for the half year ended the 31st December 1874 the average monthly income amounted to Rs. 2,143, consisting of, school fees Rs. 841, Government grants Rs. 695, Railway grant Rs. 607. The attendance compares favourably with that of schools in this country. The number of pupils on the roll was 647 and the average daily attendance 556, which was 87 more than the former and 118 higher than the latter in the previous year. It has been arranged that the heads of departments shall take turns in the management each year.

### ACCIDENTS.

Accidents.

29. The total number of accidents to trains during the year was 767 compared with 621 in the previous year, but 407, or about 51 per cent., of these were cases of running over cattle, causing no harm to passengers or stock. The others were caused by collisions, of which there were 68; by vehicles getting off the line, of which there were 103; by fire, of which there were 92. The rest were due to various minor causes. Of the 24,553,620 holders of passenger tickets, 13 were killed and 70 were injured, but 12 of the former and 27 of the latter were cases arising from imprudence or misconduct of the sufferers. Thus, in round numbers, there was only one passenger out of the  $24\frac{1}{2}$  millions whose death was owing to causes beyond his control, making the average  $\cdot 04$  per million. One in 571,000, or 1.75 per million, was in like manner injured. This compares favourably with railway travelling in this country, where during last year, one in 2,274,881 was killed, and one in 242,302 was injured from causes beyond their control. The casualties amongst the railway servants were 106 killed and 181 injured, 93 of the former and 140 of the latter from causes within their control.

Causes of  
accidents.

30. Of the 68 cases of collision, 34 are attributed to the fault of drivers, 12 to the station staff, 9 to pointsmen, and 9 to workmen employed on the line. Altogether, 6 persons were killed and 56 injured from this cause. The most serious collision was on the Great Indian Peninsula Railway, when a special troop train and a goods train ran into each other, causing death to 4 railway servants, and injury to 23 passengers and 2 servants. The number of accidents from trains and vehicles leaving the line amounted to 103, of which 49 were occasioned by the carelessness of the railway servants, chiefly pointsmen. The casualties were 19, 2 killed and 17 wounded, 12 of the latter receiving injuries in an accident on the East Indian Railway in October, during the cyclone, when a mixed train was met by the full force of the wind and brought to a standstill, completely upsetting 23 vehicles and breaking the engine coupling. The accidents from fire numbered 92, 82 of which were caused by sparks from engines, but no injury was done to passengers or railway servants.

31. The 407 cases of running over cattle were said to be due principally to the defective state of the fencing. It does not appear whether the locomotives were invariably armed with cow-catchers, but these, when used, were not always effectual in preventing the animals being run over. Two cases are reported of horses escaping from trains. In one a pony, and in the other, two horses, jumped from their boxes, the pony and one horse being run over and killed, the other horse escaping unhurt. Among the minor miscellaneous causes were those arising from the carelessness of pointsmen, the sleepiness or negligence of gatesmen, and failure of machinery. Six also occurred from malicious attempts to throw trains off the line, but they were all the acts of mischievous boys, who were caught and punished. Accidents to passengers seem, as usual, chiefly to have arisen from attempts to get in and out of trains while in motion.

32. Several deaths occurred amongst passengers in the carriages or at the stations from causes unconnected with the working of the railway, such as diarrhoea, dysentery, fever, cholera, small-pox, heat apoplexy, sunstroke, &c. Many of these arise from passengers attempting to travel when quite unfit for a journey, some actually starting in a dying state in the hope of reaching home or a sacred spot.

**NUMERICAL RETURN of all Races employed on open Lines of Railways in India, and on the Indus Steam Flotilla, on the 30th September 1874.**

RAILWAYS.	General Administration, including Agency, Audit, Account, Paymaster's Stores, Medical, Barrack, Printing, Stationery, and Police Establishments.				Traffic and Telegraph Departments.				Engineer's Department.				Locomotive and Carriage and Wagon Departments, including Steamboat Establishment.				Total.				Number of Miles open.	Number of Stations.
	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.		
East Indian -	68	35	3,287	3,390	332	194	10,519	11,045	76	17	11,018	11,111	642	217	9,271	10,130	1,118	463	34,095	35,676	1,503 <sup>1</sup>	152
Eastern Bengal -	13	2	712	727	69	42	1,178	1,239	16	7	1,547	1,570	90	38	1,710	1,838	188	89	5,147	5,424	159	34
Oude and Rohikhund -	28	30	571	629	26	13	825	864	60	23	4,570	4,653	59	34	1,891	1,984	173	100	7,857	8,130	540	76
Punjab and Delhi -	48	12	476	536	97	36	1,472	1,605	29	8	3,252	3,289	121	38	2,766	2,925	295	94	7,966	8,355	554	47
Scinde -	3	14	190	207	7	25	148	180	5	2	589	696	73	68	1,028	1,169	88	109	1,955	2,152	109 <sup>1</sup>	9
Calcutta and South-eastern (State) -	1	—	12	13	—	—	74	74	—	1	100	101	1	1	40	42	2	2	226	230	28	8
Nulhatee (State) -	1	—	13	14	—	—	42	42	—	—	69	69	1	—	60	61	2	—	184	186	27 <sup>1</sup>	6
Rajpootana (State) -	18	10	160	188	15	19	257	291	28	5	1,559	1,592	24	6	161	191	85	40	2,137	2,262	216	26
Holkar (State) -	1	—	12	13	4	1	68	78	1	1	102	104	4	1	36	41	10	8	218	231	37	5
Madras -	14	45	455	514	35	308	1,944	2,287	34	80	4,384	4,498	138	328	2,214	2,675	221	756	8,997	9,974	858	85
South Indian -	7	18	120	145	2	20	274	296	3	4	610	617	23	25	141	189	35	67	1,145	1,247	187	26
Great Indian Peninsula -	39	31	1,099	1,169	309	206	3,516	4,031	35	23	9,692	9,800	468	112	5,942	6,522	901	372	20,249	21,522	1,266 <sup>1</sup>	136
Bombay, Baroda, and Central India* -	16	30	616	662	16	53	1,388	1,457	22	9	2,686	2,717	67	156	1,147	1,370	121	248	5,837	6,206	448 <sup>1</sup>	77
<b>Total on Railways under the Government of India.</b>	<b>181</b>	<b>103</b>	<b>5,433</b>	<b>5,717</b>	<b>550</b>	<b>330</b>	<b>14,598</b>	<b>15,463</b>	<b>215</b>	<b>64</b>	<b>22,806</b>	<b>23,085</b>	<b>1,015</b>	<b>403</b>	<b>16,963</b>	<b>18,381</b>	<b>1,961</b>	<b>900</b>	<b>59,785</b>	<b>62,646</b>	<b>3,174<sup>1</sup></b>	<b>363</b>
<b>Total on Railways under the Government of Madras.</b>	<b>21</b>	<b>68</b>	<b>575</b>	<b>659</b>	<b>37</b>	<b>328</b>	<b>2,218</b>	<b>2,533</b>	<b>37</b>	<b>84</b>	<b>4,994</b>	<b>5,115</b>	<b>161</b>	<b>348</b>	<b>2,355</b>	<b>2,864</b>	<b>256</b>	<b>823</b>	<b>10,142</b>	<b>11,221</b>	<b>1,045</b>	<b>111</b>
<b>Total on Railways under the Government of Bombay.</b>	<b>55</b>	<b>61</b>	<b>1,715</b>	<b>1,831</b>	<b>325</b>	<b>259</b>	<b>4,904</b>	<b>5,488</b>	<b>107</b>	<b>32</b>	<b>12,378</b>	<b>12,517</b>	<b>535</b>	<b>268</b>	<b>7,089</b>	<b>7,892</b>	<b>1,022</b>	<b>620</b>	<b>26,086</b>	<b>27,728</b>	<b>1,714<sup>1</sup></b>	<b>213</b>
<b>Total Indian Railways -</b>	<b>257</b>	<b>227</b>	<b>7,723</b>	<b>8,207</b>	<b>912</b>	<b>917</b>	<b>21,705</b>	<b>23,534</b>	<b>359</b>	<b>180</b>	<b>40,178</b>	<b>40,717</b>	<b>1,711</b>	<b>1,019</b>	<b>26,407</b>	<b>29,137</b>	<b>3,289</b>	<b>2,348</b>	<b>96,013</b>	<b>101,595</b>	<b>5,934</b>	<b>687</b>

\* Inclusive of Dhuboe Patree and Dakore branches.

No. I.

NUMERICAL RETURN of CASUALTIES, whether by Death, Resignation and Discharge, or Dismissal, amongst the European and East Indian Employés on the Railways open for Traffic in India during the Nine Months ending 30th September 1874.

RAILWAYS.	GENERAL ADMINISTRATION, INCLUDING AGENCY, AUDIT, ACCOUNT, PAYMASTER'S STORES, MEDICAL, BARRACK, PRINTING, STATIONERY, AND POLICE ESTABLISHMENTS.				TRAFFIC AND TELEGRAPH DEPARTMENT.				ENGINEER'S DEPARTMENT.				LOCOMOTIVE AND CARRIAGE AND WAGON DEPARTMENTS, INCLUDING STEAMBOAT ESTABLISHMENTS.				TOTAL.				MEAN MILEAGE OF R.R.	REMARKS.																													
	Europeans.		East Indians.		Europeans.		East Indians.		Europeans.		East Indians.		Europeans.		East Indians.		Europeans.		East Indians.																																
	No. of Casualties by				No. of Casualties by				No. of Casualties by				No. of Casualties by				No. of Casualties by						No. of Casualties by																												
	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.			No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.														
East Indian	68	1	3	1	4	36				332	2	73	78	146	194	1	43	38	82	78	2	7	1	10	17			1	1	642	11	101	25	224	217	3	33	17	53	1,118	16	274	156	446	463	4	78	56	138	1,503	
Eastern Bengal	13	4	2	6	2					67	16	15	80	40	1	4	7	11	17	17	1	1	1	3	7			2	2	90	6	16	22	28	6	2	8	187	1	26	34	61	87	12	9	21	169				
Oude and Rohilkund	28	1	1	1	3					26	4	4	8	13	2	5	7	5	60	3	5	3	11	23	2	4	7			59	1	13	13	34	3		3	173	4	22	7	33	100	1	10	6	23	350			
Punjab and Delhi	37	9	9	15	33					168	14	22	86	41	2	5	12	20	40	4	7	4	11	11	8	1	3			183	1	50	7	59	41	1	23	3	26	348	1	30	35	114	108	4	32	18	29	554	
Scinde	8				14					7	1	1	1	25	2	2	2	2	5						2					80	2	3	4	9	70	1	2	3	36	2	3	5	10	111	3	2	5	109			
Calcutta and South-eastern (State).	12									15	1	1	1						15	1		1	1							12	1	1	1	1				4		3	2	5	2	3	2	28	(a) One European only is employed in the General Administration and one in the Locomotive Department of these two railways, but entries are made against each line.				
Nulhattee (State)	12									15	2	4	4	10	18	9	1	10	28	1	1	2	5	1						26	3	6	9	6			2	4	85	2	3	11	21	40	13	3	15	141			
Rajpootana (State)	18				1					15	2	4	4	10	18	9	1	10	28	1	1	2	5	1						4		2	2	1			10	3	3	6	3	1		1	36						
Holkar (State)	1									4	3	1	4	1	1			1	1											4				1				10	3	3	6	3	1		1	36					
Madras	14	1	1	2	45					40	1	5	1	3	34	1	2	17	30	2	2	3	10	3	3	10			146	5	10	3	13	306	1	16	1	18	228	7	14	5	29	765	4	60	22	86	853		
South Indian	10	1	2	3	19					20	1	2	3	4	20	1	2	3	4	1	1	6	2	2	6					34	6	3	11	37	1	4	8	13	50	1	11	3	15	82	2	7	10	19	187		
Great Indian Peninsula	39	3	4	7	31					300	8	45	3	56	206	1	36	5	43	64	1	13	14	27	1	1			472	11	39	16	110	117	21	21	21	904	23	146	29	193	381	1	60	7	68	1,264			
Bombay, Berods, and Central India.	16				31					17	1	1	1	58	1	3	1	5	39	6	1	7	11	9	6					67	5	9	2	16	156	29	11	40	129	5	16	6	24	256	3	41	13	55	442		
Total on Railways under Government of India.	190	1	17	2	20	106				500	2	114	120	238	338	6	68	59	131	228	6	22	10	38	67				1,039	15	226	117	398	408	5	75	24	104	2,017	26	419	249	694	914	13	154	90	257	3,084		
Total on Railways under Government of Madras.	24	1	3	1	5	64				42	1	3	1	5	374	1	33	19	53	36	1	3	4	36	1	3	12			178	5	18	6	29	343	2	20	5	31	378	8	27	5	43	387	6	67	32	105	1,046	
Total on Railways under Government of Bombay.	55	3	4	7	32					326	8	46	6	67	264	2	39	9	47	113	1	19	1	21	38	7	7			589	16	98	13	132	273	50	11	61	1,033	23	164	25	217	637	2	101	20	123	1,706		
Total Indian Railways	299	5	24	3	32	232				928	13	160	127	300	971	9	133	84	231	377	8	44	11	63	101	1	24	8	88	1,754	36	332	141	559	1,024	7	145	44	196	3,323	62	670	283	954	2,418	31	323	142	485	5,241	

(a) One European only is employed in the General Administration and one in the Locomotive Department of these two railways, but entries are made against each line.  
(b) These two persons are no longer in the service.

No. II.

STATEMENT showing the NUMBER of SERVANTS EMPLOYED in the TRAFFIC DEPARTMENT of all Railways open for Traffic in India, and the CASUALTIES amongst them, whether by Death, Resignation and Discharge, or Dismissal, during the Nine Months ending 30th September 1874, distinguishing those engaged in India and in England.

RAILWAYS.	ENGAGED IN ENGLAND.				ENGAGED IN INDIA.												TOTAL.				REMARKS.																			
	STATION MASTERS, GUARDS, ASSISTANT GUARDS, AND ALL ENGAGED IN WORKING TRAINS.				OTHERS.				STATION MASTERS, GUARDS, ASSISTANT GUARDS, AND ALL ENGAGED IN WORKING TRAINS.						OTHERS.																									
	Europeans.		Europeans.		Europeans.		East Indians.		Europeans.		East Indians.		Europeans.		East Indians.																									
	No. of Casualties by		No. of Casualties by		No. of Casualties by		No. of Casualties by		No. of Casualties by		No. of Casualties by		No. of Casualties by		No. of Casualties by																									
	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.																				
East Indian	1				3					258	2	58	66	121	61	1	8	6	15	65	7	20	7	27	68	7	31	26	60	320	2	73	73	146	159	1	80	85	75	
Eastern Bengal					2					41		9	11	20	9		1	6	7	24		6	4	10	31		3	1	4	67		15	15	30	40		4	7	11	
Oude and Rohilkund										28		4	4	6	12		5		5	3						1				28		4	4	8	13		5		5	
Punjab and Delhi	1				4					68		8	14	22	19	2	2	3	7	35		6	8	14	22		3	10	13	108		14	22	36	41	2	6	13	20	
Scinde										6			1	1	9	2			2	1						1				7			1	1	25	2			2	
Calcutta and South-eastern (State)																				1		1		1						1										
Nulhattee (State)																																								
Rajpootana (State)										12	2	4	4	10	19		9	1	10	8											16	2	4	4	10	19		9	1	10
Holkar (State)										4		3	1	4	1				1											4		3	1	4	1	1			1	
Madras					7					23	1	3		4	209	1	15	10	26	7			1	1	59		9	3	12	57	1	3	1	5	268	1	24	13	38	
South Indian														16		1	2	3	2							4				2				20		1	2	3		
Great Indian Peninsula	9				4					258	8	35	6	49	101		23	3	26	38		7		7	105	1	13	2	16	309	8	42	6	56	306	1	36	5	42	
Bombay, Baroda, and Central India					4					10		1		1	28	1			1	3						35		3	1	4	17		1		1	58	1	3	1	5
Total on Railways under the Government of India	1				9					406	4	81	101	186	130	6	25	16	47	132		33	19	52	168		37	40	77	548	4	114	120	238	298	6	62	56	124	
Total on Railways under the Government of Madras					7					23	1	3		4	225	1	16	12	29	9			1	1	63		9	3	12	89	1	3	1	5	288	1	25	15	41	
Total on Railways under the Government of Bombay	9				8					268	8	36	6	50	124	1	23	3	27	41		7		7	140	1	16	3	20	326	6	43	6	57	264	2	39	0	47	
Total Indian Railways	10				24					697	13	120	107	240	479	8	44	31	103	182		40	20	60	371	1	62	40	100	913	13	160	127	300	850	9	126	77	212	

N.B.—With the exception of the East Indian and Madras Railways, the figures of all the other railways represent the casualties in both the Traffic and Telegraph Departments.

No. III.

STATEMENT showing the NUMBER of SERVANTS EMPLOYED in the LOCOMOTIVE and CARRIAGE and WAGON DEPARTMENTS of all Railways open for Traffic in India, and the CASUALTIES amongst them, whether by Death, Resignation and Discharge, or Dismissal, during the Nine Months ending 30th September 1874, distinguishing those engaged in England and in India.

RAILWAYS.	ENGAGED IN ENGLAND.										ENGAGED IN INDIA.										REMARKS.																			
	DRIVERS, FIREMEN, PILOTMEN, AND ALL WORKING ON MOVING ENGINES.					OTHERS.					DRIVERS, FIREMEN, PILOTMEN, AND ALL WORKING ON MOVING ENGINES.					OTHERS.						TOTAL.																		
	Europeans.					Europeans.					Europeans.					East Indians.						Europeans.					East Indians.													
	No. of Casualties by					No. of Casualties by					No. of Casualties by					No. of Casualties by						No. of Casualties by					No. of Casualties by													
	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.		No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.	No. employed.	Death.	Resignation and discharge.	Dismissal.	Total.				
East Indian	115	2	39	3	44	90	—	2	1	3	300	7	131	66	204	73	2	10	9	21	141	2	19	12	35	145	1	25	3	32	642	11	191	62	234	217	2	35	17	56
Eastern Bengal	3	—	—	—	—	8	—	—	2	2	87	—	4	14	18	14	—	3	—	3	23	—	2	—	2	24	—	3	2	5	90	—	6	16	22	58	—	6	2	8
Oude and Rohilkund	3	—	—	—	—	6	—	—	—	—	33	—	9	—	9	13	—	2	—	2	17	1	3	—	4	31	—	6	—	6	59	1	12	—	13	34	—	8	—	8
Punjab and Delhi	1	—	—	—	—	10	1	—	—	1	92	—	42	7	49	27	1	17	5	21	35	—	8	—	8	14	—	5	—	5	188	1	50	7	58	41	1	12	3	26
Scinde	—	—	—	—	—	2	—	1	—	1	7	1	—	—	1	1	—	—	—	—	3	—	1	—	1	23	—	1	—	1	17	1	2	—	3	29	—	1	—	1
Calcutta and South-eastern (State)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	2	—	2	15	—	1	—	1	—	—	—	—	1	—	1	—	1	1	—	2	—	2	
Nulhattee (State)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—		
Rajpootana (State)	5	—	—	—	—	5	—	—	—	—	14	—	3	6	9	5	—	2	2	4	—	—	—	—	—	1	—	—	—	24	—	3	6	9	6	—	2	2	4	
Holkar (State)	1	—	—	—	—	1	—	—	—	—	2	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—	2	2	1	—	—	—	
Madras	6	—	—	—	—	19	2	1	—	3	52	2	6	3	11	97	—	7	—	7	65	1	3	—	4	209	1	9	1	11	142	5	19	3	18	206	1	16	1	18
South Indian	5	—	1	—	1	6	—	1	—	1	10	—	5	3	8	13	1	1	3	5	4	—	1	—	1	24	—	3	5	8	34	—	8	3	11	37	1	4	8	13
Great Indian Peninsula	52	2	9	1	12	72	1	12	—	13	106	6	33	13	52	49	—	6	—	6	152	2	35	2	39	68	—	15	—	15	473	11	80	16	116	117	—	21	—	21
Bombay, Baroda, and Central India	17	1	2	1	4	14	2	—	—	2	23	2	5	1	8	17	—	5	2	7	13	—	2	—	2	139	—	24	9	35	67	5	9	2	16	155	—	29	11	40
Total on Railways under the Government of India	123	2	39	3	44	129	1	3	8	7	495	8	139	95	292	133	3	36	14	53	225	3	34	12	49	234	1	26	10	49	976	14	205	113	392	367	4	74	24	102
Total on Railways under the Government of Madras	11	—	1	—	1	25	2	2	—	4	71	2	11	6	19	110	1	8	3	12	69	1	4	—	5	233	1	12	6	19	176	5	18	6	29	343	2	20	9	31
Total on Railways under the Government of Bombay	69	3	11	2	16	86	3	12	—	15	219	8	38	14	60	66	—	11	2	13	165	2	37	2	41	207	—	30	9	48	530	16	98	18	132	273	—	50	11	61
Total Indian railways	208	5	51	5	61	239	6	17	8	26	785	18	238	115	371	309	4	55	19	78	459	6	75	14	95	674	2	50	25	116	1,091	35	381	137	553	683	6	144	44	194

(a) One European only is employed in the General Administration, and one in the Locomotive Department of these two railways, but entries are made against each line.

TABLE No. 1.

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 1874.

(11264)

Under the Control of the Government of	Mean Mileage open.	Railways.	Classification of Accidents to Trains, &c.					Passengers.				Servants of Companies or of Contractors.				Others.						Total Persons of all Classes.					
			Main Heads.					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.		Whilst crossing at Level Crossings.		Whilst trespassing (including Suicide).		Miscellaneous.		Killed.	Injured.	Killed and Injured.			
			I. Collision.	II. Getting off proper Line.	III. Fire.	IV. Running over Cattle.	V. Other Causes.	Total.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.							
																					Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.
India	1,504	East Indian	1874	36	21	20	184	6	257	1	18	8	17	1	13	27	70	8	1	51	10	7	8	108	132	235	
	1,504		1873	34	25	15	115	27	216	—	15	6	20	1	6	19	65	8	—	42	10	4	4	75	119	194	
	158	Eastern Bengal	1874	1	—	—	1	—	2	—	—	—	1	—	—	6	9	—	—	1	—	—	—	7	10	17	
	157		1873	3	—	—	—	—	3	—	—	—	—	—	—	2	5	—	—	—	—	—	—	5	8	13	
	524	Oude and Rohilkund	1874	5	7	12	18	18	55	—	1	—	1	—	8	7	7	—	—	5	—	—	—	1	14	18	32
	874		1873	3	5	13	12	8	36	1	13	—	—	1	2	8	7	—	—	1	—	—	—	13	22	35	
	554	S. P. & D. Punjab Section.	1874	6	14	19	4	14	57	—	1	—	1	—	4	4	4	—	—	6	1	—	—	1	11	7	18
	556		1873	12	24	14	10	16	76	—	—	1	3	—	9	14	7	—	—	4	1	—	—	1	20	20	40
	109	S. P. & D. Scinde Section.	1874	—	1	10	15	18	44	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	1
	105		1873	—	2	14	13	12	41	—	—	1	—	—	2	—	1	—	—	—	—	—	—	—	1	8	4
	28	Calcutta and South-eastern (State).	1874	2	4	—	31	—	37	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	2	2
	28		1873	—	—	—	2	—	2	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1	2	1	3
	27	Nulhatee (State)	1874	—	1	1	2	2	6	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	1	2	3
	27		1873	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	173	Rajpootana (State)	1874	2	19	—	12	10	43	—	—	—	—	—	—	9	2	—	—	—	—	—	—	—	11	2	13
91	1873		2	4	1	5	2	14	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	1	1	2	
36	Holkar (State)	1874	1	1	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	
Nil.		1873	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
857	Madras	1874	1	18	19	48	6	92	—	—	1	1	8	6	7	—	—	—	5	—	—	2	—	17	14	31	
848		1873	1	7	5	46	5	64	—	—	—	1	—	—	9	2	—	—	5	1	1	—	—	15	4	19	
186	South Indian	1874	—	2	—	22	—	24	—	—	—	2	—	—	—	—	1	—	—	—	—	—	—	1	2	3	
187		1873	—	—	—	18	1	19	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	2	2	
1,420	Great Indian Peninsula (a).	1874	12	15	11	45	23	106	—	28	—	1	7	12	22	29	1	—	5	2	3	3	3	38	70	108	
1,279		1873	18	27	8	40	18	111	2	15	—	2	7	13	33	2	1	3	5	1	1	1	1	21	64	85	
444	Bombay, Baroda, and Central India (b).	1874	2	—	—	25	5	32	—	—	2	1	1	2	10	11	1	1	2	3	—	—	—	1	16	19	35
428		1873	8	9	—	22	4	38	—	9	2	2	—	5	6	11	1	—	1	2	8	1	1	18	28	41	
Total Indian Railways	6,020 5,575	—	1874	68	103	92	407	97	767	1	43	12	27	18	41	98	140	11	2	77	16	14	9	221	278	499	
			1873	76	108	70	283	89	621	3	54	10	29	2	28	72	134	9	1	58	20	12	6	166	272	438	

(a) Includes Wardha Valley State Railway, Nizam's State Railway, and Berar Branch Railway.

(b) Includes Dubhoe Branch Railway.



TABLE NO. II.—NUMERICAL ABSTRACT OF ACCIDENTS OF ALL CLASSES on all Railways open for Traffic in India during the Year 1874.

	UNDER THE CONTROL OF THE GOVERNMENT OF INDIA.														UNDER THE CONTROL OF THE GOVERNMENT OF MADRAS.				UNDER THE CONTROL OF THE GOVERNMENT OF BOMBAY.				Total.						
	East Indian.		Eastern Bengal.		Onde and Rohilkund.		Punjab and Delhi.		Scinde.		Calcutta and South-Eastern.		Nulhatee.		Rajpootana.		Holkar.		Madras.		South Indian.		Great Indian Peninsula.		Bombay Baroda & Central India.		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.	Killed.	Injured.			
<b>PASSENGERS.</b>																													
From causes beyond their own control, etc.—																													
From accidents to trains	1	17	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	40	40
From other causes	1	18	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	48	48
Total	2	35	..	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	88	88		
Per million of passengers	0.16	2.97	..	..	..	..	0.51	..	0.49	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.04	1.76	1.79		
Par million of passenger miles	0.009	0.04	..	..	..	..	0.01	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
From their own misconduct or in-caution	8	17	..	1	..	1	..	1	..	..	..	..	..	..	..	..	1	1	..	2	..	1	2	1	12	27	39		
Per million of passengers	1.32	2.81	..	0.60	..	0.51	..	0.49	..	..	..	..	..	..	..	..	0.36	0.36	..	1.31	..	0.80	0.28	0.28	0.40	1.10	1.59		
Par million of passenger miles	0.017	0.087	..	0.018	..	0.01	..	..	..	..	..	..	..	..	..	..	0.007	0.007	..	0.04	..	..	..	..	..	..	..	..	
Total from all causes	9	35	..	1	..	2	..	2	..	..	..	..	1	2	..	..	1	1	..	2	..	2	3	1	24	70	94		
<b>SERVANTS OF COMPANIES OR OF CONTRACTORS.</b>																													
From causes beyond their own control	1	18	..	..	1	8	..	..	..	..	..	..	..	..	..	..	3	6	..	..	7	12	1	2	12	41	53		
From their own misconduct or in-caution	27	70	6	9	7	7	4	4	1	..	..	1	..	..	9	2	1	..	6	7	..	..	22	26	10	11	99		
Total from all causes	28	88	6	9	8	15	4	4	1	..	..	1	..	..	9	2	1	..	9	13	..	..	29	41	11	13	108		
<b>OTHER PERSONS.</b>																													
Crossing at level crossings	8	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	1	11	2	13
Trespassers, including suicide	51	10	1	..	5	..	6	1	..	..	..	..	..	..	..	..	5	..	..	..	5	2	2	8	77	16	93		
Miscellaneous	7	3	..	..	1	1	1	..	..	..	..	..	..	..	..	..	2	..	..	..	3	3	..	1	14	9	23		
Total from all causes	66	14	1	..	6	1	7	1	..	..	..	1	..	..	2	..	..	..	7	..	1	..	9	6	3	5	102		
Grand total of all classes from all causes	103	132	7	10	14	16	11	7	1	..	..	2	1	2	1	..	17	14	1	2	38	70	16	19	221	273	494		
Mean length of railway open during the year (miles)	1,504	156	524	554	160	28	274	173	36	857	126	1,420*	441†	6,020†															
Number of passengers carried	6,650,270	1,653,803	1,978,216	2,038,463	73,083	435,273	69,870	635,589	109,554	2,773,017	1,532,216	3,352,828	8,500,507	24,563,620															
Train mileage (goods and passengers)	7,683,019	558,555	617,721	1,429,483	182,195	88,277	35,926	219,971	40,576	1,920,633	315,714	3,969,217	973,117	17,982,403															
Passenger mileage	450,963,709	35,206,924	92,174,410	..	..	3,270,593	1,731,420	24,600,854	3,413,463	186,749,504	47,071,345	..	..	..															

\* Includes the Nizam's, Wardha Valley, and the Berar State Railways.

† Includes the Dubhoe Branch.

TABLE No. II. A.—CLASSIFIED ABSTRACT OF ACCIDENTS TO SERVANTS OF COMPANIES OR OF CONTRACTORS on all Railways open for Traffic in India during the Year 1874.

CLASSIFICATION.	UNDER THE CONTROL OF THE GOVERNMENT OF INDIA.																UNDER THE CONTROL OF THE GOVERNMENT OF MADRAS.				UNDER THE CONTROL OF THE GOVERNMENT OF BOMBAY.				Total.				
	East Indian.		Eastern Bengal.		Oude and Rohilkund.		Panjab and Delhi.		Scinde.		Calcutta and South-Eastern.		Nulthatee.		Rajpootana.		Holkar.		Madras.		South Indian.		Great Indian Peninsula.		Bombay, Baroda, & Central India.		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.	Killed.	Injured.			
<b>I.—FROM CAUSES BEYOND THEIR OWN CONTROL, viz.:</b>																													
(a.) Servants employed on trains in motion—																													
1. Collisions	1	7	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	7	..	..	3	19	22	
2. Trains running into sidings or off their proper line, through points being wrong	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
3. Trains or engines getting off rails	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
4. Accidents from defects in rolling stock	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
5. Miscellaneous	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Total	1	7	..	..	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	4	..	..	10	20	30	
(b.) Servants employed in stations or on line—																													
1. Run over or crushed between buffers while coupling or uncoupling carriages and wagons	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
2. Run over while shunting trains	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
3. Run over or struck while performing their duties	..	4	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	2	
4. Miscellaneous	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	2	1	3	
Total	..	6	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	3	12	15	
<b>II.—FROM INCAUTION OR MISCONDUCT:</b>																													
(a.) Servants employed on trains in motion—																													
1. Collisions	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
2. Attempting to get upon, or off, or falling from engines or carriages in motion	4	16	..	..	2	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	..	..	2	10	12	
3. Miscellaneous	..	8	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	9	11	
Total	4	30	1	..	3	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	5	18	3	4	25	25	50	
(b.) Servants employed in stations or on lines—																													
1. Run over or crushed between buffers while coupling or uncoupling carriages or wagons	4	10	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
2. Run over or struck while shunting trains	2	4	2	2	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
3. Run over or struck while incautiously standing or walking upon the line	14	16	1	4	3	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	5	2	..	..	8	5	13	
4. Miscellaneous	3	10	1	3	1	1	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	3	..	1	10	11		
Total	23	40	5	9	4	6	3	2	1	..	..	1	..	..	1	2	1	..	..	..	..	17	16	7	7	34	25	59	
<b>Grand Total</b>	23	88	6	9	8	15	4	4	1	..	..	1	..	..	9	2	1	..	..	..	..	20	41	11	13	100	181	287	
Train mileage	7,638,019																												
Number of servants employed	30,974																												
	55,455																												
	617,722																												
	1,429,483																												
	183,195																												
	38,277																												
	33,926																												
	219,971																												
	40,573																												
	1,920,633																												
	315,714																												
	3,969,317																												
	978,117																												
	17,000,000																												

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TABLE No. III.

Showing the TOTAL NUMBER of ACCIDENTS to PERSONS of all kinds, and to TRAINS, &c., on all RAILWAYS open for TRAFFIC during the Year 1874.

Under the Control of the Government of	Mean Length of Railway open.	Total Number of Train Miles.	Train Miles per Mile open.	Passenger Mileage.*	Passenger 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 open.	Passengers.		Servants.				Trespassers, &c.		Total.		
									Killed.	Injured.	Beyond their own Control.		Within their own Control.		Killed.	Injured.	Killed.	Injured.	Killed and Injured.
											Killed.	Injured.	Killed.	Injured.					
India	1874	3,113½	10,803,722	3,470	—	518	18,094,692	4,206	10	42	2	21	55	98	82	17	149	178	322
	1878	2,842½	8,293,424	2,917	696,297,426	244,916	11,642,812	4,095	9	54	2	18	44	87	62	15	117	174	291
Madras	1874	1,048	2,236,347	2,144	—	116	4,305,238	4,128	1	5	3	6	6	7	8	—	18	16	34
	1878	1,030	2,323,938	2,256	172,298,967	167,281	4,210,602	4,088	—	1	—	—	9	3	6	2	15	6	21
Bombay	1874	1,864	4,942,384	2,651	—	138	7,153,695	3,838	2	25	8	14	32	40	12	10	54	89	143
	1878	1,703	4,527,843	2,659	388,118,339	227,903	6,509,159	3,822	4	28	—	10	19	44	11	10	34	92	126
Total	1874	6,020½	17,982,403	2,987	—	767	24,553,620	4,079	13	70	13	41	98	140	102	27	221	278	499
	1878	5,575½	15,145,205	2,716	1,256,714,732	225,879	22,362,573	4,011	13	83	2	28	72	134	79	27	166	272	438

\* Information not received for all Railways.

† Includes the Wardha Valley State Railway, the Nizam's State Railway, and the Berar Branch Railways, which are worked by the Great Indian Peninsula Railway. The Dubhoo Branch is also worked by the Bombay, Baroda, and Central India Railway.

## CAPITAL.

33. The capital expenditure on railways during the year ending the 31st March last is estimated to have been 4,126,667*l.*, of which 2,694,124*l.* was expended on State lines, as distinguished from guaranteed lines. Of this amount 2,207,119*l.* was disbursed in England, and 1,919,548*l.* in India. The Government expenditure in England was 1,032,224*l.*, the Companies, 1,174,895*l.* In India, the Government expended 1,661,900*l.*, and the Companies, 257,648*l.* The Companies began the year with a balance of 3,371,988*l.*, and left off with one of 2,332,693*l.* They raised a sum of 766,748*l.* during the year, principally by means of debentures at 4 per cent. The amount of debenture loan has, however, been reduced from 6,945,340*l.* to 6,624,140*l.*, and 200,000*l.* has been renewed at 4, in place of 5 per cent.

34. The total amount raised by the railway companies up to the 31st March was 95,119,119*l.*, and is now divisible in the following manner, viz. :—

	£	£	
Share capital at 5 per cent.	81,034,395	Debenture stock 4½ per cent.	1,925,000
Do. do. 4½	1,286,596	Do. do. 4	3,204,878
Do. do. 4½	500,000	Capital not bearing interest	544,110
Debentures 5	1,592,790		
Do. do. 4½	1,707,450		
Do. do. 4½	1,292,550		
Do. do. 4	2,031,350		
			£95,119,119

35. The following statement shows, approximately, how the capital has been expended :—

Statement showing Distribution of Capital expended.

Railway Company.	Works and Bridges.	Permanent Way and Stations.	Freight and Insurance.	Rolling Stock and Engines.	Establishments.	Miscellaneous, Electric Telegraph, Stores, &c.
	£	£	£	£	£	£
East Indian - - - -	9,580,000	7,140,000	3,000,000	3,650,000	3,730,000	3,350,000
Great Indian Peninsula - - - -	9,474,000	7,490,000	—	2,872,000	1,619,000	1,477,000
Madras - - - -	3,438,000	3,836,000	—	1,108,000	883,000	451,000
Bombay, Baroda, and Central India -	3,248,000	2,157,000	—	1,104,000	777,000	512,000
				1,960,000		
Scinde, Punjab, and Delhi - - - -	2,082,000	3,424,000	—	Steamers and Barges, 377,000	1,029,000	790,000
				Workshops, 45,504		
South Indian - - - -	656,000	627,000	—	126,000	334,000	233,000
				316,000		
Eastern Bengal - - - -	2,228,000	—	—	Steam-boats and Flotilla, 78,000	336,000	115,000
Oude and Rohilkund - - - -	1,193,000	2,237,000	—	508,000	500,600	470,000

36. A large amount of capital still remains locked up in stores which have accumulated in India. These will by degrees be reduced, a considerable proportion being paid for out of revenue. The sums represented by them are as follows :—

	£		£
East Indian - - - -	909,561	South Indian - - - -	515,845
Great Indian Peninsula - - - -	1,229,660	Eastern Bengal - - - -	93,328
Madras - - - -	343,869	Oude and Rohilkund - - - -	209,890
Bombay, Baroda, and Central India - - - -	440,138		
Scinde, Punjab, and Delhi	439,307		
			£4,181,598

37. The amount that will annually be required to obtain the necessary supplies from this country for the maintenance of the lines, after they are opened, may be roughly estimated at 600,000*l.*

STATEMENT No. 1.

STATEMENT OF EXPENDITURE IN ENGLAND AND INDIA ON INDIAN STATE RAILWAYS, appropriated to the various Undertakings as shown in Statements to 31st December 1874, received from India.

State Railway.	Expenditure appropriated.			Classification of Expenditure.											
	England.	India.	TOTAL.	Preliminary Expenses.	Land.	Construction of Lines.	Ballast and Permanent Way.	Stations and Buildings.	Electric Telegraph.	Plant.	Rolling Stock.	Establishment.	Contingencies.	Suspense Accounts.	Receipts on Capital Account.
Punjab, Northern	£ 374,857	£ 1,286,452	£ 1,610,809	£ 24,272	£ 14,466	£ 711,861	£ 175,858	£ 38,712	£ 108	£ 116,076	£ 21,582	£ 289,518	£ 10,885	£ 212,122	£ 5,465
Indus Valley	231,874	1,129,215	1,361,089	60,139	7,879	285,977	152,763	69,871	—	39,381	8,886	240,155	16,359	483,079	2,350
Hubli and Karwar	2,502	52,728	55,230	8	—	—	—	—	—	—	—	53,586	1,641	—	—
Wardha Valley, Coal	2,088	163,752	165,840	8,498	61	37,304	77,306	10,154	—	1,526	241	16,624	647	13,410	131
Holkar	208,158	475,473	683,631	3,252	4,140	216,380	117,785	28,763	—	7,986	18,864	80,629	6,166	202,018	2,202
Neemuch	145,378	152,281	297,559	20,880	—	27,842	2,924	7,996	—	7,129	—	47,104	2,803	182,370	139
Agra District, Rajpootana	395,466	715,533	1,110,999	16,864	7,225	272,680	899,808	59,011	—	3,533	58,787	86,848	4,692	196,903	802
Delhi do. do.	175,290	564,269	739,559	8,324	19,987	143,307	321,820	60,214	—	11,985	49,072	72,358	3,923	49,674	1,119
Western do. do.	—	29,211	29,211	2,194	—	—	—	—	—	2,081	—	23,607	1,300	—	36
Nalhatta	30,000	—	30,000	—	—	*30,000	—	—	—	—	—	—	—	—	—
Calcutta and South-eastern	268,383	462,498	730,881	6,769	108,507	104,596	155,774	87,271	3,693	6,270	132,522	86,774	18,766	17,939	—
Northern Bengal	—	185,366	185,366	3,844	13,419	42,087	1,131	6,066	1,095	8,007	—	54,759	1,625	53,368	232
Scindia	—	13,902	13,902	1,213	—	—	—	—	—	1,057	—	11,201	394	37	—
Nagpur and Chhatesghur	—	8,773	8,773	1,117	—	—	—	—	—	470	—	6,973	231	—	13
Tirhoot	83,436	191,966	275,402	154	61	62,796	131,950	11,304	—	6,133	28,875	12,520	786	20,708	484
Rangoon and Irrawaddy Valley	—	21,207	21,207	3,572	289	4,575	479	292	—	827	—	1,099	39	10,098	6
Moradabad, Deobund, and Roorkee	—	2,852	2,852	52	—	—	—	—	—	34	—	2,616	150	—	—
Hathras and Muthra Section, Light Provincial Railway.	—	27,875	27,875	89	844	1,944	18,987	951	—	120	—	3,659	88	1,090	—
NATIVE STATES.															
Nizam's	85,649	997,855	1,083,504	1,057	—	380,090	462,203	56,770	—	16,445	9,156	101,537	4,449	44,440	2,643
Khamgaum Branch	—	48,530	48,530	37	89	10,921	29,923	4,638	—	343	—	2,838	234	—	—
Oomraotee Branch	13,816	80,418	94,234	112	245	9,418	25,259	4,844	—	302	15	3,806	128	—	—
Mysore	—	11,624	11,624	550	—	—	—	—	—	631	—	9,994	249	—	—
Total	2,015,797	6,521,770	8,537,567	163,649	176,712	2,351,378	2,072,570	446,457	5,131	238,486	328,335	1,208,205	75,052	1,487,189	15,597

\* This amount was paid to the Oude and Rohilkund Railway Company for purchase of the Line.

Note.—The total expenditure in England on State Railways to 31st December 1874 amounted to 2,787,425*l*. The above figures represent only that portion of such expenditure as had been appropriated in India to the several undertakings to the date of the last advices received.

India Office, 14th June 1875.

E. R. CAVE-BROWNE,  
Acting Accountant.

STATEMENT No. 2.

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 withdrawn, to 31st March 1875.

Railway.	Estimated Cost of Lines.	Amount authorised to be raised on 31st March 1875.						Amount raised in England to 31st March 1875.					Amount raised in India to Date of last Advices.		Total Amount raised to 31st March 1875.	Total Amount withdrawn to 31st March 1875 (partly estimated).	
		Share Capital.	Debentures.		Debenture Stock.	Capital not bearing Interest.	Total.	Share Capital.	Debentures.		Debenture Stock.		Capital not bearing Interest.	Share Capital.			Capital not bearing Interest.
			Convertible into Shares.	Inconvertible.					Convertible into Shares.	Inconvertible.	Stock represented.	Cash received.					
East Indian—Main Line	27,750,000	22,788,860	216,140	2,940,000	1,500,000	160,165	27,600,165	22,406,530	216,140	2,940,000	1,500,000	1,500,000	158,827	326,825	1,388	27,549,160	27,167,508
„ Jubbulpore Line	3,250,000	3,200,000	—	—	—	87,591	3,237,591	3,151,480	—	—	—	—	87,591	7,665	—	3,196,736	3,454,336
Great Indian Peninsula	24,000,000	20,000,000	—	1,304,250	3,065,300	229,602	24,599,152	19,064,125	—	1,304,250	2,701,450	2,475,559	228,860	405,047	742	23,478,583	23,084,484
Madras	10,500,000	10,200,700	101,700	500,000	—	9,898	10,812,298	9,555,066	101,700	500,000	—	—	9,898	—	—	10,166,664	10,124,989
Bombay, Baroda, and Central India	8,000,000	7,411,700	183,900	200,000	—	85,387	7,880,987	7,389,518	183,900	200,000	—	—	85,387	21,672	—	7,830,477	7,835,228
Scinde, Punjab, and Delhi	11,000,000	11,418,900	—	—	—	4,408	11,423,308	10,988,984	—	—	—	—	4,386	86,258	67	11,079,640	10,186,665
Eastern Bengal	3,200,000	2,255,520	—	462,850	411,808	2,288	3,131,466	2,238,996	—	52,650	411,908	374,730	2,288	16,486	—	2,685,150	3,084,282
Oude and Rohilkund	6,000,000	3,989,800	10,200	1,115,300	384,700	3,352	5,508,352	3,571,878	10,200	1,115,300	384,700	354,589	3,352	417,890	—	5,478,204	5,175,142
South Indian	4,000,000	3,215,781	—	—	425,000	61,424	3,702,155	3,171,860	—	—	425,000	425,000	61,369	1,221	55	3,659,505	2,675,797
Total	97,700,000	84,476,211	511,940	6,521,800	5,786,308	544,110	97,840,469	81,538,432	511,940	6,112,200	5,422,458	5,129,878	541,908	1,282,559	2,302	95,119,119	92,786,428

India Office, 8th April 1875.

T. W. KEITH,  
Accountant.

STATEMENT No. 3.

SHOWING the AMOUNT received from and withdrawn by each Company during the Year ended 31st March 1875..

Railway.	Sums standing to the Credit of the Companies on the 31st March 1874.	Sums advanced to the Companies on the 31st March 1874.	Amount received.						Amount withdrawn.					Total received during the Year ended 31st March 1875.	Total withdrawn during the Year ended 31st March 1875.
			In England, between 1st April 1874 and 31st March 1875.				In India, between 1st April 1874 and the Date to which Accounts have been received.		In England, between 1st April 1874 and 31st March 1875.		In India.				
			Share Capital.	Debentures.	Deben- ture Stock.	Capital not bearing Interest.	Share Capital.	Capital not bearing Interest.	On account of Stores, Establishment Charges, &c.	For Discharge of Debentures.	Date to which Accounts have been received.	Amount.	Estimated Withdrawals between Dates specified and 31st March 1875.		
East Indian, Main Line.	£ 469,179	£ —	£ 700	£ —	£ —	£ —	£ —	£ 85,947	£ 10,000	31st January 1875	£ 7,720*	£ —	£ 700	£ 88,227	
East Indian, Jubbul-pore Line.	—	804,520	48,130	—	—	7,557	—	—	86,000	"	77,233*	—	55,687	8,767	
Great Indian Penin-sula.	528,702	—	—	—	—	—	—	259,758	—	"	125,153*	—	—	134,608	
Madras	185,209	—	1,596	—	—	—	—	96,815	—	31st December 1874	1,185*	—	1,596	95,180	
Bombay, Baroda, and Central India.	—	9,152	1,762	200,000	—	555	—	94,837	111,800	31st January 1875	10,726*	—	202,317	195,911	
Scinde, Punjab, and Delhi.	945,651	—	—	—	—	217	—	50,196	—	"	2,697	—	217	52,898	
Eastern Bengal	—	159,308	—	5,000	—	—	—	17,430	164,700	"	62,694	—	5,000	244,824	
Oude and Rohilkund	189,296	—	—	500,000	—	1,281	—	100,167	—	31st December 1874	192,298	50,000	501,231	342,465	
South Indian	Great South- ern of India.	1,006,023	—	—	—	—	—	101,732	1,000	31st July 1874†	34,154	—	—	643,223	
	Carnatic	620,909	—	—	—	—	—	74,990	—	" †	16,746	—	—		
	South Indian	—	—	—	—	—	—	293,528	—	31st December 1874	71,078	50,000	—		
Total	3,844,968	472,980	52,188	705,000	—	9,560	—	1,174,895	378,500	—	157,648	100,000	766,748	1,806,043	

\* Transfers of expenditure to Revenue Account, Sale proceeds of Stores, Refunds, &c. exceed by these sums the amount withdrawn in India on Capital Account during the year.

† The amalgamation of the Great Southern of India and Carnatic Railway Companies under the title of South Indian Railway Company bears date 30th June 1874, but it did not come practically into operation until the 1st August.

India Office, 8th April 1875.

T. W. KEITH,  
Accountant.

## STATE OF DEBENTURE LOANS on the 31st March 1875.

Railway.	Amount.			Rate of Interest.	Date at which Loan expires.
	Convertible.	Inconvertible.	Total.		
East Indian	—	196,150		4½	10th August 1875.
"	—	1,024,000		4½	"
"	216,140	—		5	9th August 1876.
"	—	96,400		4½	10th August 1877.
"	—	188,450		4½	"
"	—	1,000,000		4½	22d August 1877.
"	—	440,000		4	19th March 1878.
	216,140	2,940,000	3,156,140		
Great Indian Peninsula	—	1,035,450		5	31st Dec. 1876.
"	—	268,800		4	30th June 1878.
	—	1,304,250	1,304,250		
Madras	—	500,000		4½	1st January 1876.
"	101,700	—		5	1st January 1877.
	101,700	500,000	601,700		
Bombay, Baroda, and Central India	188,900	—		5	1st July 1876.
"	—	200,000		4	1st January 1882.
	188,900	200,000	388,900		
Eastern Bengal	—	45,400		5	1st November 1876.
"	—	7,250		4	1st November 1884.
	—	52,650	52,650		
Oude and Rohilkund	10,000	—		5	15th April 1875.
"	100	—		5	28th July 1876.
"	100	—		5	18th February 1879.
"	—	615,300		4	4th June 1880.
"	—	500,000		4	1st August 1881.
	10,200	1,115,300	1,125,500		
			6,624,140		

India Office,  
8th April 1875.

T. W. KEITH,  
Accountant.



STATEMENT of WITHDRAWALS out of CAPITAL for EXPENDITURE; showing the Amount withdrawn in England and in India by all the Guaranteed Indian Railway Companies during each Financial Year from the commencement to 31st March 1875.

Year.	England.	India.	Total,
	£	£	£
1849-50	69,211	6,682	75,893
1850-51	61,164	38,099	99,263
1851-52	154,212	197,111	351,323
1852-53	174,920	252,640	427,560
1853-54	252,484	418,165	670,649
1854-55	960,878	769,278	1,730,156
1855-56	1,936,074	1,431,337	3,366,411
1856-57	1,752,813	1,762,287	3,515,100
1857-58	1,328,243	2,094,825	3,423,068
1858-59	1,941,033	3,551,075	5,492,108
1859-60	2,508,668	4,662,796	7,171,464
1860-61	2,388,315	5,190,400	7,578,715
1861-62	1,597,430	5,004,782	6,602,212
1862-63	1,852,393	4,010,951	5,863,344
1863-64	1,415,146	3,340,507	4,755,653
1864-65	1,396,821	2,725,419	4,122,240
1865-66	2,222,679	3,414,187	5,636,866
1866-67	3,958,357	3,339,846	7,297,703
1867-68	3,924,490	3,195,591	7,120,081
1868-69	1,969,814	2,512,084	4,481,898
1869-70	2,298,680	2,444,171	4,742,851
1870-71	1,899,054	1,877,216	3,776,270
1871-72	886,996	1,609,732	2,496,728
1872-73	822,995	345,750†	477,245
1873-74	1,028,032	334,079†	693,053
1874-75	1,174,895	257,648*	1,432,543*
	39,974,797	53,425,600	93,400,397
Deduct amount withdrawn by the Calcutta and South-eastern Railway Company, this Railway having subsequently become the property of the State	267,362	846,609	613,971
	39,707,435	53,078,991	92,786,426

\* These amounts are partly estimated.

† Transfers of expenditure to Revenue Account, Sale proceeds of Stores, Refunds, &c., exceed by these sums the amount withdrawn in India on Capital Account.

Note.—The total expenditure in India in each year as shown in the above Statement will not be found to coincide with that shown in the Indian Finance and Revenue Accounts, owing to the fact that the transfers of expenditure to Revenue Account can only be made in the books in this country on receipt of advices from India, and are consequently brought to account some months later than in the Indian books.

India Office,  
8th April 1875.

T. W. KEITH,  
Accountant.

## REVENUE.

38. The revenue derived from the railways during the year 1874 was 770,856*l.* in excess of the previous year. The gross receipts amounted to 7,760,760*l.*, being 1,021,845*l.* in excess of the previous year. The expenses were 3,804,689*l.* as compared with 3,553,703*l.* The net revenue was accordingly 3,956,071*l.*

39. The amount paid for guaranteed interest during the year 1874-75 was 4,694,355*l.*, towards which the guaranteed lines contributed 3,562,000*l.*, leaving 1,132,355*l.* as a charge upon the revenues of the year. A sum of 752,705*l.* was realised, in excess of the guaranteed interest advanced to them, by the East Indian, the Eastern Bengal, and the Bombay and Baroda railways. Half this amount was, under the terms of the contract, paid back to the companies for distribution amongst the shareholders. The East Indian received 365,510*l.* 10*s.*, the Eastern Bengal, 8,480*l.* 10*s.*, and the Bombay, Baroda, and Central India, 2,361*l.* 10*s.* from this source.

40. The following statement shows the amount of surplus profits earned by guaranteed railways from 1870 to 1874 inclusive :—

Railway Company.	Half year to 30th June 1870.	Half year to 30th June 1871.	Half year to 30th June 1872.	Half year to 30th June 1873.	Half year to 31st Dec. 1873.	Half year to 30th June 1874.	Half year to 31st Dec. 1874.	Total.
East Indian, Main Line	£ 130,095	£ 109,255	£ 150,695	£ 167,753	£ 104,688	£ 641,832	£ 77,951	£ 1,382,269
"    Jubbulpore Line	—	—	—	—	—	11,238	—	11,238
Bombay, Baroda, and Central India	—	—	5,864	—	—	4,723	—	10,587
Eastern Bengal	—	—	—	—	8,411	7,810	9,151	25,372
Total	130,095	109,255	156,559	167,753	113,099	665,603	87,102	1,429,466

24th June 1875.

E. R. CAVE-BROWNE.

41. The annual payments on account of guaranteed interest, and the amount paid in reduction of the same, during the last five official (not calendar) years have been as follows, viz. :—

Financial Year.	Guaranteed Interest.	Net Traffic Receipts less half surplus profits.	Net Charge.
1869-70	£ 4,176,008	£ 2,628,944	£ 1,547,064
1870-71	4,391,592	2,556,781	1,834,811
1871-72	4,592,166	2,868,948	1,723,218
1872-73	4,658,401	2,547,900	2,110,501
1873-74	4,667,906	3,230,554	1,437,352
1874-75 } partly estimated.	4,694,355	3,562,000	1,132,355

42. The improvement which took place in the revenue of the railways during the past year is due principally to the large traffic in grain for the famine-stricken districts of Bengal. The Great Indian Peninsula and the Bombay and Baroda, which did not directly participate in this traffic, also show an advance, but the trade of the country still continues depressed, and the business of the railways is of course injuriously affected thereby.

43. Both exports and imports diminished in the year 1873-74. The cotton trade, especially during the last few years, has fallen off considerably, and this tells very much against the Bombay lines. The cotton exported to England amounted in—

1863-4 to 4,522,526 cwts., of the value of 38,215,145*l.*

1868-9 to 4,284,334 cwts., " " 18,342,887*l.*

1873-4 to 3,280,877 cwts., " " 9,625,626*l.*

The value of all imports and exports in the same years from Bombay were as follows :—

—	Imports.	Exports.	Total.
1863-4	£ 30,407,409	£ 38,568,724	£ 68,976,133
1868-9	24,128,314	23,770,307	47,898,621
1873-4	11,663,266	20,871,314	32,534,580

Taking the whole of India, the value of imports and exports were—

—	Imports.	Exports.	Total.
1863-4	£ 50,108,171	£ 66,895,884	£ 117,004,055
1868-9	51,146,095	54,457,744	105,603,839
1873-4	38,386,142	56,874,849	95,260,991

STATEMENT showing the REVENUE from the INDIAN RAILWAYS in 1873 and 1874, as given in the Accounts passed by Government.

Railway.	Receipts.				Expenditure.			Per-centage of Expenditure to Gross Receipts.	Net Receipts.
	Passengers.	Goods.	Miscellaneous.	Total.	Maintenance.	Working, &c.	Total.		
East Indian, Main Line - 1874	£ 749,416	£ 2,350,949	£ 94,281	£ 3,187,646	£ 203,421	£ 922,804	£ 1,125,725	35	£ 2,061,921
" " - 1873	749,043	1,735,355	94,516	2,579,114	200,090	769,335	969,425	38	1,609,689
" " Jubbulpore Line 1874	68,696	181,146	35,195	235,037	16,889	83,192	100,081	43	184,956
" " - 1873	66,945	89,779	21,312	178,036	21,784	79,602	101,386	57	76,650
Great Indian Peninsula - 1874	488,544	1,369,990	40,013	1,848,547	193,996	899,824	1,093,820	59	754,728
" " - 1873	498,277	1,203,413	26,330	1,728,020	193,931	911,506	1,107,437	64	620,583
Madras - - - - 1874	226,369	295,011	20,049	541,429	112,126	237,908	350,124	64	191,305
" " - - - - 1873	231,249	380,325	19,200	630,774	131,355	227,921	359,276	57	271,698
Bombay, Baroda, and Central India - - - - 1874	203,382	304,580	29,059	537,021	49,840	230,538	279,878	52	257,143
" " - - - - 1873	208,699	288,334	14,965	512,998	84,984	218,519	303,503	59	208,695
Sinde, Punjab, and Delhi 1874	199,274	362,194	130,782	692,250	70,792	345,015	415,807	60	266,443
" " - - - - 1873	198,790	270,060	18,453	487,303	67,102	267,522	334,630	69	152,673
" " Indus Steam Flotilla 1874									
" " - - - - 1873	5,592	65,431	92	71,115	21,484	45,079	66,563	94	4,552
*Great Southern of India for 1st half of - - - - 1874	21,560	17,770	1,156	40,486	5,302	20,602	25,904	64	14,582
*Carnatic for 1st half of - 1874	1,853	213	28	2,099	244	647	891	43	1,207
South Indian (being an amalgamation of the two marked*) for 2nd half of - - 1874	26,011	19,073	1,227	46,311	5,595	21,664	27,259	59	19,051
Great Southern and Carnatic for year - - - - 1878	53,195	49,596	3,255	106,047	11,104	41,931	58,038	58	53,011
Eastern Bengal - - - - 1874	99,033	211,519	55,379	365,931	89,308	158,907	198,215	54	167,721
" " - - - - 1873	107,393	154,733	52,741	314,867	28,711	132,248	160,959	51	153,908
Oude and Rohilkund - 1874	109,283	87,983	3,186	200,452	30,408	98,675	129,083	64	71,320
" " - - - - 1873	63,219	47,192	1,949	112,390	18,826	63,120	81,946	73	30,444
Totals for Guaranteed Railways 1874	2,186,426	5,150,378	400,355	7,687,159	727,416	3,019,866	3,746,782	48	3,940,377
" " - 1873	2,182,632	4,284,818	252,613	6,720,263	781,371	2,766,789	3,538,160	52	3,182,103
STATE.									
Calcutta and South-eastern 1874	5,309	2,481	1,330	9,120	1,645	5,500	7,145	78	1,975
" " - - - - 1873	5,416	3,672	1,120	10,207	3,271	7,198	10,469	103	[Loss 261]
Nulhuttee - - - - 1874	4,830	2,836	137	7,803	1,135	4,110	5,245	67	2,558
" " - - - - 1873	5,664	2,607	154	8,445	1,099	3,973	5,072	60	3,373
Rajpootana (Agra District) 1874	11,269	19,231	637	31,337	8,909	16,220	25,129	80	6,208
" " (Delhi District) 1874	9,674	11,776	3,891	25,341	4,866	15,522	20,388	80	4,953
Totals for State Railways - 1874	31,082	36,324	6,195	73,601	16,555	41,352	57,907		15,694
" " - - - - 1873	11,100	6,279	1,273	18,652	4,369	11,171	15,540		3,112
Grand Total for all Railways 1874	2,167,508	5,186,702	406,550	7,760,760	743,971	3,060,718	3,804,689	49	3,956,071
" " - 1873	2,193,732	4,291,096	254,087	6,738,915	785,740	2,767,960	3,533,700	53	3,185,215

† Including steam-boat service.

### GUARANTEED INTEREST.

44. The sums advanced by Government for guaranteed interest to the different companies during the year amounted, as will be seen by the statement below, to 4,641,705*l.*, compared with 4,613,511*l.* of the previous year, and the whole amount advanced since the commencement of operations was increased from 47,632,471*l.* to 52,274,176*l.* These sums are the gross amounts advanced by Government, without reference to the earnings which go in reduction of them. When they are taken into consideration, the net amount advanced, as shown in the table on page 30, is 24,269,199*l.*, which is again subject to reduction by future half surplus profits.

45. The following figures give the proportionate repayment by each company, out of their earnings, of the sums advanced for guaranteed interest. The guaranteed interest, it may be observed, begins as soon as the money is paid into the Government Treasury, and in many cases for years before the railways are opened and in a condition to return anything.

	Proportion per cent. of guaranteed interest returned.
East Indian, Main line	77·87
East Indian, Jubbulpore	21·13
Great Indian Peninsula	51·50
Madras	44·99
Bombay, Baroda, and Central India	40·81
Scinde, Punjab, and Delhi	14·43
Eastern Bengal	65·17

#### GUARANTEED INTEREST.—INDIAN RAILWAYS.

STATEMENT of the Total Amount of INTEREST advanced to each of the under-mentioned Railway Companies to the 31st December 1874.

Railway Company.	Interest advanced to 31st December 1873.		Interest advanced during 1874.						Total.	
			England.		India.		Total.			
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
East Indian, Main Line	17,165,655	4 9	1,330,032	12 10	11,449	3 5	1,341,481	16 3	18,507,137	1 0
„ Jubbulpore Line	1,561,076	9 0	157,256	7 7	383	5 0	157,639	12 7	1,718,716	1 7
Great Indian Peninsula	11,292,411	1 4	1,128,612	19 0	15,428	3 0	1,144,041	2 0	12,436,452	3 4
Madras	6,879,011	16 10	500,228	13 1	—	—	500,228	13 1	6,379,240	9 11
Bombay, Baroda, and Central India	3,922,396	15 9	384,755	6 2	266	9 1	385,021	15 3	4,307,418	11 0
Scinde, Punjab, & Delhi	4,715,922	8 0	550,528	9 9	2,740	6 10	553,268	16 7	5,269,191	4 7
Eastern Bengal	1,337,077	19 6	138,730	6 7	1,177	12 0	139,907	18 7	1,476,985	18 1
Oude and Rohilkund	753,611	14 8	237,818	14 2	5,184	5 10	243,003	0 0	996,614	14 8
*South Indian { Great Southern of India	885,639	10 2	138,660	8 0	—	—	177,112	9 8	1,182,419	13 8
{ Carnatic	119,667	13 10	38,452	1 8						
<b>Total</b>	<b>£47,632,470</b>	<b>13 10</b>	<b>4,605,075</b>	<b>18 10</b>	<b>36,629</b>	<b>5 2</b>	<b>4,641,705</b>	<b>4 0</b>	<b>52,274,175</b>	<b>17 10</b>

\* The amalgamation of the Great Southern of India and Carnatic Railway Companies under the title of the South Indian Railway Company bears date 30th June 1874, but it did not come practically into operation until the 1st August.

India Office, 8th April 1875.

T. W. KEITH,  
Accountant.

A STATEMENT showing approximately the AMOUNTS advanced on account of GUARANTEED INTEREST to the several under-mentioned Railway Companies to the 30th June 1874, beyond the amount of Net Revenue applied thereto.

Railway Company.	Total Amount advanced to 31st December 1874.*	Aggregate of Net Revenue Balances for the several half-years to 30th June 1874, inclusive.	Net Amount advanced.
	£	£	£
East Indian, Main Line	18,507,137	14,413,517	4,093,620
" Jubbulpore Line	1,718,716	863,238	1,355,478
Great Indian Peninsula	12,436,452	6,404,846	6,031,606
Madras	6,379,240	2,870,264	3,508,976
Bombay, Baroda, and Central India	4,307,419	1,758,112	2,549,307
Scinde, Punjab, and Delhi	5,269,191	760,698	4,508,493
Eastern Bengal	1,476,986	962,638	514,348
Oude and Rohilkund	996,615	110,878	885,737
†South Indian { Great Southern of India	1,182,420	360,786	821,634
{ Carnatic			
Total	£ 52,274,176	28,004,977	24,269,199

\* The Interest for the half-year to 30th June 1874 not being paid until the succeeding half-year.

† The Great Southern of India and Carnatic Railway Companies were amalgamated on the 30th June 1874, under the title of South Indian Railway Company.

India Office, 8th April 1875.

T. W. KEITH, Accountant.

46. The following statement, which shows the results of calculations made by desire of your Lordship, is of sufficient general interest to be introduced here:—

1. The total withdrawals by guaranteed railway companies from the commencement of operations to the 30th June 1874 on capital account were £91,750,803

2. The amount of debt that it would probably have been necessary to incur in order to meet such expenditure, had the companies not existed, and the interest that would have been paid thereon.

	Principal.	Interest.
	£	£
India bonds	10,783,700	8,510,192
India debentures	9,699,500	7,014,500
" "	3,227,500	2,097,875
India 5 per cent. stock	42,289,100	23,050,033
India 4 per cent. stock	25,520,100	4,890,428
	<u>91,519,900</u>	<u>45,563,028</u>

3. The total amount of capital that has been raised by the several companies, and the interest paid thereon by the Indian Government.

	Principal.	Interest.
	£	£
East Indian, Main line	27,558,640	17,833,191
" " Jubbulpore line	3,227,049	1,643,715
Madras	10,166,166	6,129,111
Great Indian Peninsula	23,478,583	11,864,432
Scinde, Punjab, and Delhi	11,079,423	4,992,823
Bombay, Baroda, and Central India	7,740,594	4,114,804
Eastern Bengal	2,844,850	1,407,060
Great Southern of India	2,868,208	954,970
Oude and Rohilkund	4,971,973	873,273
Carnatic	791,242	138,894
	<u>94,726,728</u>	<u>49,952,273</u>

India Office, 11th December 1874.

T. W. KEITH, Accountant.

47. The "withdrawals" in the first paragraph are the sums paid to the railway companies for capital expenditure out of the money previously paid by them into the Government Treasury. The difference between the 91,750,803% in the first paragraph and 94,726,728% in the third is the balance to the credit of the companies. The difference in the two amounts of interest (45,563,028% and 49,952,273%) may be accounted for, to a considerable extent, by the large balances which the companies have been expected to keep. — If the interest were to be calculated upon the amounts withdrawn, and from the dates of withdrawal, the sum for interest in the latter statement would be much less.

## TRAFFIC AND WORKING.

48. The statements which follow, and which are compiled from returns prepared in India for this report, furnish full particulars of the traffic and working of each separate undertaking, and enable comparisons to be drawn of the results. The following are the general conclusions:—

49. The total number of passengers of all classes carried in 1874 was 24,280,459, compared with 23,557,605 of the year 1873. Of the former number, 23,556,218, or 97·01 per cent., consisted of the lowest classes; 543,800, or 2·21 per cent., of the second; and 180,440, or ·78 per cent., of the first class. The receipts from passengers (including 105,823*l.* for troops, and 199,958*l.* for excess luggage, carriages, horses, &c., and excluding 7,148*l.* for mail service) were 2,183,015*l.*, of which 106,198*l.*, or 4·81 per cent., was received from the first, 102,990*l.*, or 4·70 per cent., from the second, and 1,650,110*l.*, or 75·58 per cent., from the lowest classes. The total receipts from passengers, compared with last year, were 3,440*l.* less.

50. On some of the lines the decrease was considerable, and on others there was not much difference. On the Great Indian Peninsula, for instance, the numbers fell off by 193,000, and the receipts diminished 59,700*l.* On the East Indian, the Scinde, Punjab, and Delhi, and on the Madras, the passenger traffic was nearly stagnant. The numbers only increased in the cases of those lines where the rates had been reduced. The Bombay, Baroda, and Central India Railway, on which a reduction of third-class fares had been made, carried 589,000 more than in the preceding year, and on the South Indian where the 2 pie rate has also been tried, there has been a gradual increase since 1872. A reduction in rates is naturally accompanied at first by a falling off in receipts, but if the reduction has been judiciously made and the management is good, a recovery may be expected in due time.

51. The South Indian Railway furnishes an example in point. When the third-class rate was reduced to 2 pie or  $\frac{1}{4}$  *d.* a mile, the number of passengers increased from 707,918 in the year ending 30th June 1872 to 1,197,539 in 1873, and to 1,257,400 in 1874. The mileage increased, in the same period, from 27,902,695 to 43,999,394. The receipts in 1872 were Rs. 357,136, in 1873 Rs. 354,358, and in 1874 Rs. 367,738. Thus, while there was an increase in numbers of 71 per cent., there was an increase in receipts of only 3 per cent., and in the year next to that in which the reduction was made there was a decrease of 0·8 per cent. This result, while it is apt to produce feelings of disappointment, by no means indicates failure. It proves that the poorer classes in India will use the railway when brought within their means, and that they will travel considerable distances when proper facilities and encouragement are offered. Evidence of this is given by the average distance now travelled by third-class passengers. It comes to about 30 miles per passenger, and seems to point out that the rates are still too high to offer attractions for short journeys. Where the distance can be traversed on foot and where country carts can be used, the railway is avoided so long as time is not an object. There can be no doubt, however, that to give low fares a proper chance the strictest economy must be observed. The increased expense consequent on the conveyance of the larger number above mentioned probably more than covered the small increase in receipts. As one important step in the direction of economy, a watchful eye should be kept on the train mileage and the train loads. If more trains are run than are required, and more vehicles are run in each train than are necessary for the work to be done, great wastage necessarily follows. By a statement made of the passenger traffic on the Great Indian Peninsula and the Bombay and Baroda railways, it would appear that the average number of seats provided and used in each train was as follows:—

	Seats provided.		Seats used.	
	G. I. P.	B. B. and C. I.	G. I. P.	B. B. and C. I.
1st class	38·16	32	3·25	2·78
2nd class	80·80	80·36	15·73	11·03
3rd class	292·5	596·7	138·5	253·8

52. It is difficult, of course, on lines where the up and down traffic is unequal, to avoid a certain amount of unprofitable train load, but this is seldom the case with regard to passengers, and the greater the difficulty the more necessity for careful management. The above figures show a disproportionate amount of unpaying dead weight.

Goods.

53. The general merchandise carried amounted to 4,663,016 tons, exclusive of 33,608 conveyed by the Indus Flotilla, compared with 3,266,062 of the previous year. The minerals were 687,450 tons, compared with 671,004 of 1873. Thirty-nine per cent. of the whole quantity, viz., 2,137,981, was conveyed on the main line of the East Indian Railway. While there was a falling off in the general traffic of the country, there was an increase on the East Indian of 711,068, and on the Punjab and Delhi of 130,564 tons, due, of course, to the large demands for grain in the districts where scarcity prevailed.

54. The receipts from goods increased by 981,603*l.* from 4,292,005*l.* in 1873 to 5,273,608*l.* in 1874. The East Indian Railway alone earned 656,761*l.* more than the previous year, and the Punjab and Delhi 291,407*l.* The Great Indian Peninsula shows an increase of 166,578*l.*, but the Madras, on the other hand, a decrease of 86,378*l.*

55. The number of miles travelled by trains during the year was 18,475,322, compared with 15,650,597 of the previous year, and the ton mileage (signifying the number of tons moved one mile) was 1,102,956,185 against 802,704,329. The same observations as to the necessity of keeping up the train loads applies with even greater force to the goods traffic.

Expenses.

56. The expenses of maintenance and working amounted to 3,682,601*l.*, exclusive of 73,646*l.* for the Flotilla, being at the rate of 3·98*s.* per train mile, compared with 4·46*s.* of the year 1873. The receipts per train mile came to 8·39*s.* A comparison of the charges in the different departments of the various railways, as given in Table IV., will show how the expenses vary, and where a more economical management is needed. But the amount of work done and the cost of doing it can best be ascertained through the passenger and ton mileage, *i.e.*, the number of passengers and the amount of goods respectively carried one mile and the cost thereof. This will be found given for six of the more important railways in the tables (pages 34 and 35), which have been prepared by Mr. A. M. Rendel on the same basis as those which were compiled by him for previous reports. The test is not an infallible one, but the nearest to absolute accuracy, and when it is obtained it furnishes a guide for economical management, and for the application of fixed principles to the regulation of charges.

57. A marked difference will be observed in the expenses. The work done, for instance, by the Great Indian Peninsula Railway last year was less than half that of the East Indian, and yet the cost was nearly the same. In other words, the expenses of the Great Indian Peninsula were, proportionately, twice as much as the East Indian. The position of the lines is, no doubt, different as regards the supply of fuel, the cost of the East Indian being 2·26*d.*, and that of the Great Indian Peninsula 10*d.* per train mile, but this will not account for the contrast in the expenditure of the two. Nor is it explained by the difference in the proportion of "up" and "down" traffic, although this likewise is in favour of the East Indian, which has 47 of the one and 53 of the other, against 57 and 43 of the Great Indian. The true explanation will be found in the two items before mentioned, viz., the train loads and the train miles. The form in which Mr. Rendel has reduced the statistics of the year enables the case to be clearly exemplified. It will thus be seen that while on the East Indian Railway the average number of passengers in each train was 223, and on the Bombay, Baroda, and Central India 285, on the Great Indian Peninsula it was 173, and on the Scinde only 125; that the average goods' train loads of the Eastern Bengal, East Indian, and the Bombay, Baroda, and Central India were 168, 120, and 92 tons respectively, of the Great Indian Peninsula and Madras 82 and 48½ tons; that the average cost of running a train one mile was, on the East Indian 2*s.* 9½*d.*, on the Great Indian Peninsula 5*s.* 2½*d.*, on the Bombay, Baroda, and Central India 5*s.* 3*d.*, and on the Scinde 7*s.*; that the average cost of carrying a passenger and a ton of merchandise one mile respectively on the East Indian was ·151*d.* and ·279*d.*, on the Great Indian Peninsula ·36*d.* and ·762*d.* (more than twice as much), on the Bombay, Baroda, and Central India ·221*d.* and ·685*d.*

58. On the Madras line, which is in the same position as regards coal as the Great Indian Peninsula, the cost of fuel per train mile was only 3·08*d.*, and that

of producing locomotive power was 14·79*d.* per train mile, while on the latter it was 23·53*d.* This may in some measure be explained by the more plentiful supply of wood for fuel on the Madras line; but in another department a comparison brings the same result. The repairs and renewals of rolling stock on the Madras amounted to 2·90*d.*, and on the Great Indian to 7·40*d.*, per train mile. Special or accidental circumstances may possibly account for this variance, but it is sufficient to call for careful investigation and renewed exertions.

59. The relations between the people and the railways, it may be observed, are very different in India to what they are in this country. In India the tax-payer takes the risk and pays the dividend. In return for this he has a right to expect the best and most economical management and all reasonable and proper accommodation. In fulfilling these obligations the companies would be serving their own interests. The returns show that the success of the undertakings depends upon the receipts taken from the mass of the people and for conveying the staple commodities of the country. It is very important to develop this description of traffic, and to suit the charges to the wants and capabilities of the country. It will be seen by Mr. Rendel's table that the most prosperous line, viz., the East Indian, is that which has the lowest average goods rate. Through the inducement of low fares, accompanied by regularity, safety, and comfort, trains may be run nearly, instead of half, full, and a paying traffic may be brought to a line. The revenue also may be further improved by care, economy, and energetic management; for reduction in expenditure helps as much as receipts to increase profits.

PARTICULARS relating to the TRAFFIC of the GUARANTEED RAILWAYS named below for the year 1874, based on their Revenue Accounts, and prepared on the Basis of those printed as Appendices to the yearly Reports for 1872 and 1873, by Mr. A. M. RENDEL, Consulting Engineer for State Railways to the Secretary of State in Council, and to the East Indian Railway Company.

60. "The sums given as working expenses are arrived at by deducting from the gross expenses given in the revenue accounts all receipts from miscellaneous sources, from private telegraph messages, and from demurrage. The miscellaneous receipts in many cases would, if properly treated in the revenue accounts, appear as credits to working expenses, and not as receipts to the credit of revenue, and the method adopted in the particulars here given is very nearly strictly correct.

"The principle however is somewhat strained for the year 1874, in consequence of the East Indian Railway main line having been compelled by the famine traffic to borrow rolling stock very largely from the Jubbulpore line, the Punjab and Delhi, and the Bombay and Baroda, for which it paid what are really demurrage and not hiring rates. The East Indian main line expenses have therefore been somewhat largely abnormally increased, whilst those of the other lines named have been correspondingly decreased.

"Telegraph and demurrage receipts do not amount to much, and they are deducted from working expenses, in order to leave on the revenue side receipts for the transport of goods and passengers by rail only, and at the same time to bring into account all other sources of revenue.

"Steam ferry profits are deducted from the East Indian Railway expenses. They form a very small fraction of the whole receipts of the line.

"In the case of the Scinde and Eastern Bengal lines, steamboat receipts and expenses, which form a considerable part of the whole of each, are left out of the account, but in the case of the Scinde, a portion of the general expenses, proportional to the steamboat receipts, have been deducted as belonging to the steamboat expenses.

"Neither payments to, or receipts from, special or reserve funds have been taken into account, the actual expenditure only of the year having been considered in all cases.

"In the case of the Scinde, Punjab, and Delhi, the returns, as sent home, of the average number of carriages and wagons per train (30 of each) are probably erroneous in regard to carriages. The Eastern Bengal returns, as sent home, are clearly wrong in regard to the division of mixed mileage between passengers and goods. They are here divided on the principle that 22 passenger vehicles are equal to 33 goods, taking the numbers of each as given in the returns, viz., 4 passenger and 25 goods vehicles per train.

"In determining the passenger mileage, the traffic in luggage, parcels, horses, &c., is converted into passenger mileage at the average rate obtained for carrying



passengers only. It must be understood therefore, that from 10 to 12 per cent. of the passenger train loads represent the general items other than passengers usually included in 'coaching' traffic. Live stock is similarly treated in the case of goods ton mileage, but forms an extremely small item in it.

## (a) PASSENGER TRAFFIC.

	East Indian Railway.		Great Indian Peninsula.	Madras.	Bombay, Baroda, and Central India.	Scinde, Punjab, and Delhi.		Eastern Bengal.
	Main.	Jubbulpore.				Scinde.	Punjab and Delhi.	
Average length open, miles	No. 1,220 £	No. 223½ £	No. 1,266½ £	No. 853 £	No. 424 £	No. 110 £	No. 553½ £	No. 168½ £
(1.) Receipts from passenger traffic.	742,416	68,095	438,544	226,309	203,383	11,479	187,795	99,029
(2.) Passenger train miles run	No. 2,138,599 s. d.	No. 260,876 s. d.	No. 1,487,561 s. d.	No. 716,558 s. d.	No. 493,095 s. d.	No. 47,819 s. d.	No. 627,896 s. d.	No. 216,810 s. d.
(3.) Average passenger train mile receipts.	6 11½	5 11½	5 11½	6 3½	6 5	4 9½	6 0	9 1½
(4.) Number of passengers carried one mile.	No. 476,414,400	No. 41,034,000	No. 254,228,546	No. 188,850,000	No. 187,480,000	No. 5,991,435	No. 130,188,800	No. 61,673,000
(5.) Average sum received for carrying a passenger one mile.	d. 374	d. 395	d. 314	d. 342	d. 355	d. 46	d. 375	d. 386
(6.) Average number of passengers in a train at one time.	No. 323	No. 180	No. 178	No. 221.7	No. 225	No. 125	No. 101.5	No. 284
(7.) Average number of passenger trains per diem each way, supposing each train to traverse the whole line open.	No. 3.29	No. 1.41	No. 1.59	No. 1.14	No. 1.56	No. 695	No. 1.55	No. 1.28
(8.) Average number of passengers passing over each mile of line daily (both ways).	No. 1,080	No. 509	No. 550	No. 507	No. 838	No. 149	No. 594	No. 1,007
(9.) Number of passenger vehicles run one mile.	No. 33,040,436	No. 2,855,390	No. 30,071,398	No. 5,139,691	No. 4,234,630	No. 1,434,390	No. 18,281,580	No. 3,949,210
(10.) Average number of passenger vehicles in a passenger train.	No. 15.46	No. 12.37	No. 13.7	No. 7.17	No. 8.9	No. 30.1	No. 30.1	No. 11.8
(11.) Average number of passengers in each vehicle.	No. 54.4	No. 14.5	No. 13.66	No. 30.9	No. 32.5	No. 4.17	No. 6.4	No. 24
(12.) Average earnings of each vehicle per mile.	d. 5.4	d. 5.78	d. 5.25	d. 10.57	d. 11.4	d. 1.23	d. 2.4	d. 2.22
(13.) Total working expenses for both goods and passengers, deducting special and miscellaneous receipts from them.	£ 1,027,029	£ 65,247	£ 1,020,393	£ 329,471	£ 267,707	£ 53,491	£ 228,500	£ 153,304
(14.) Average cost of running a train mile, passenger and goods miles assumed to cost the same.	s. d. 2 9½	s. d. 2 8½	s. d. 5 2½	s. d. 3 5	s. d. 5 3	s. d. 7 0	s. d. 3 5½	s. d. 5 7
(15.) Average cost of carrying a passenger vehicle with its load one mile.	d. 2.18	d. 2.2	d. 4.55	d. 5.23	d. 7.10	d. 2.812	d. 1.375	d. 6.68
(16.) Average cost of carrying a passenger one mile.	d. 1.51	d. 1.61	d. 26	d. 1.85	d. 2.21	d. 1.275	d. 2.15	d. 2.39

## (b) GOODS TRAFFIC.

Average length open, miles	No. 1,220 £	No. 223½ £	No. 1,266½ £	No. 853 £	No. 424 £	No. 110 £	No. 553½ £	No. 168½ £
(1.) Receipts from goods traffic	2,360,940	151,146	1,369,083	994,409	804,298	61,078	300,430	211,035
(2.) Goods train miles run	No. 5,192,069 s. d.	No. 348,279 s. d.	No. 2,457,093 s. d.	No. 1,203,915 s. d.	No. 499,561 s. d.	No. 104,317 s. d.	No. 702,098 s. d.	No. 309,074 s. d.
(3.) Average goods train mile receipts.	9 0½	7 6½	11 1½	4 10½	12 3	11 8½	3 6½	13 7½
(4.) Tons of goods carried one mile.	Tons. 625,524,000	Tons. 32,381,000	Tons. 201,576,000	Tons. 58,637,472	Tons. 46,025,543	Tons. 10,309,400	Tons. 69,330,000	Tons. 42,420,000
(5.) Average sum received for carrying one ton one mile.	d. 902	d. 973	d. 1.63	d. 1.205	d. 1.586	d. 1.423	d. 1.04	d. 1.194
(6.) Average number of tons in a goods train at one time.	Tons. 120.5	Tons. 92.75	Tons. 92	Tons. 48.5	Tons. 92	Tons. 98.75	Tons. 99	Tons. 137
(7.) Average number of goods trains per diem each way, supposing each train to run over the whole line open.	No. 5.566	No. 2.13	No. 2.66	No. 1.98	No. 1.61	No. 1.3	No. 1.75	No. 2.37
(8.) Average number of tons of goods passing over each mile of line daily (both ways).	Tons. 1,336	Tons. 896	Tons. 497	Tons. 187	Tons. 297	Tons. 256	Tons. 343	Tons. 749
(9.) Number of goods vehicles run one mile.	No. 146,127,011	No. 8,511,765	No. 53,244,339	No. 13,775,190	No. 15,363,633	No. 3,122,510	No. 21,062,860	No. 9,332,297
(10.) Average number of goods vehicles in a goods train.	No. 28.15	No. 26.4	No. 23.7	No. 11.4	No. 30.75	No. 30	No. 30	No. 30
(11.) Average number of tons in each goods vehicle.	Tons. 4.28	Tons. 3.3	Tons. 3.44	Tons. 4.23	Tons. 5	Tons. 3.29	Tons. 3.3	Tons. 4.50

## (b.) Goods Traffic—continued.

	East Indian Railway.		Great Indian Peninsula.	Madras.	Bombay, Baroda, and Central India.	Scinde, Punjab, and Delhi.		Eastern Bengal.
	Main.	Jubbulpore.				Scinde.	Punjab and Delhi.	
(12.) Average earnings of each vehicle per mile.	d. 3'86	d. 3'99	d. 5'04	d. 5'13	d. 4'75	d. 4'68	d. 3'424	d. 5'5
(13.) Total working expenses for both goods and passengers, deducting from them special and miscellaneous receipts.	£ 1,927,920	£ 65,847	£ 1,020,898	£ 329,471	£ 257,767	£ 58,491	£ 228,500	£ 153,504
(14.) Average cost per train mile, goods and passenger miles assumed to cost the same.	s. d. 2 0½	s. d. 2 3½	s. d. 5 2½	s. d. 3 5	s. d. 5 3	s. d. 7 0	s. d. 3 5½	s. d. 5 7
(15.) Average cost of carrying a goods vehicle with its load one mile.	d. 1'195	d. 1'126	d. 2'64	d. 3'6	d. 2'05	d. 2'815	d. 1'375	d. 2'23
(16.) Average cost of carrying a ton of goods one mile.	d. 2'79	d. 2'34	d. 7'63	d. 8'40	d. 6'85	d. 8'56	d. 4'15	d. 4'08

" An examination of these tables will shew that the highest average passenger train loads were obtained on the Bombay and Baroda and on the Eastern Bengal, amounting to 285 and 284 persons respectively; the lowest on the Scinde, amounting to 125 only; and that the highest average goods train loads were obtained on the Eastern Bengal, amounting to 137 tons; the lowest, on the Madras, amounting to 48½ tons only.

" The lowest train mile cost (omitting the Jubbulpore branch of the East Indian, which is so much affected by receipts from the main line for wagon hire that it had better be left out of account) is found on the East Indian main line, where it amounted to 2s. 9½d.; the highest is found on the Scinde, where it reached 7s.

" The costs of carrying a passenger and a ton of goods one mile were lowest on the East Indian main line, amounting to 15½d. and 286d. respectively. They were highest on the Scinde, where they reached 675d. and 854d. respectively.

" The lowest average charge for carrying goods was on the East Indian main line, where it was only 17½d. per ton per mile; it was highest on the Great Indian Peninsula, where it amounted to 163d. The lowest average charge for passengers was on the Madras, where it was 342d. per mile, and the highest on the Scinde, where it was 46d.

" The highest passenger traffic is found on the Eastern Bengal and East Indian main lines, where it amounted to 1,067 and 1,020 persons per mile per diem respectively, or about equal to that of the English London and North-western; and the lowest on the Scinde, where it was only 149 persons per mile per diem.

" The highest goods traffic is found on the East Indian main line, where it amounted to 1,336 tons per mile per diem, about the same, probably, as that of the London and North-western; the lowest is that of the Madras, amounting to 187 tons per mile per diem only."

With regard to the question of fuel, efforts are being made in all directions to increase the native supply. That obtained in Bengal and used on the East Indian and the Eastern Bengal Railways maintains its character, and arrangements have lately been made with the Oude and Rohilkund Railway Company, and the Punjab and Delhi Railway Company, by which charges for the conveyance of coal to their respective lines will be so reduced as to make the use of that which can be supplied from Ranegunge and Kurhurbalee more economical than wood. Enquiries are also being made with the view of ascertaining whether the same coal may not be profitably used on the Madras lines. Trials were made by Mr. Boodle, the acting locomotive superintendent of the Madras Railway, under circumstances as identical as possible, with Indian, Australian, and English coal. The result was favourable to Indian coal. The average consumption per mile of English coal was 30.16 to 32.83 lbs., Australian was 27.35, Indian was 31.08; the cost per mile being 6s. 11p., 7s. 1p., and 7s. 1p. for English, 5s. 5p. for Australian, and 4s. 9p. for Indian, the cost price of the English descriptions having been 32r. 6s. 4p. and 30r. 5s. 8p.; of the Australian 27r. 13s. 1p., and of the Indian Tauhoné (Bengal) 21r. 8s. The last has, however, been since supplied at Madras for 18r. 4s., and it is possible that, by arrangements with regard to freight, it may be obtained at a still lower price.

The supplies from the Nerbudda District are now more regular and satisfactory, and soon the Warora mines will be opened and connected with the Great Indian

Peninsula Railway, so that every year an increased consumption of native coal may be expected. Reporting in April 1874, Mr. Walter Ness, the Mining Engineer, says, with regard to the Warora beds, "I compute that at least 20 millions of coal may be expected, and that there is every reason to believe that there is a much greater quantity than this on the southern part of the field which has been only partially proved; but, taking only that now named as proved, there is a safe store to draw from for about 130 years at 500 tons a day, which quantity is likely to meet all requirements both for locomotive and manufacturing purposes."

61. The importance of the fuel question is demonstrated by the following statement, in which it will be seen, that while the East Indian and the Eastern Bengal railways obtained coal at the place of delivery on their respective lines, at the rate of 6s. 9d. and 16s. 1d. per ton, it costs the Bombay and Madras lines and those of Central India from 2l. 6s. to 2l. 18s. per ton, and that while the Great Indian Peninsula paid on an average 2l. 12s. 10d. for English coal they obtained country coal for 19s. 6½d. per ton. To give, however, a more accurate notion of the average cost of the coal when used on the different lines, the cost of transport from the point of delivery to the point of consumption must be added. Taking the actual charge for conveyance at ½d. per ton per mile, and allowing for the average distances which the coal has to be carried, about 18s. should be added to the figure above given for the East Indian and 3s. 6d. to that for the Eastern Bengal. This will bring the cost of coal for these railways up to about 24s. and 20s. per ton respectively. In the same way, about 12s. per ton should be added to the cost above stated for the Bombay and Madras lines, making the average prices at the points of consumption 58s. and 70s.

STATEMENT showing the COST and CONSUMPTION of FUEL at the Point of DELIVERY on the respective LINES during the Year 1874.

Railway.	Coal.					Coke.					Patent Fuel.					Wood.				
	Quantity in Tons.	Total Cost.	Cost per Ton.	Consumption.		Quantity in Tons.	Total Cost.	Cost per Ton.	Consumption.		Quantity in Tons.	Total Cost.	Cost per Ton.	Consumption.		Quantity in Tons.	Total Cost.	Cost per Ton.	Consumption.	
				Per Train Mile in lbs.	Per Vehicle per Mile.				Per Train Mile in lbs.	Per Vehicle per Mile.				Per Train Mile in lbs.	Per Vehicle per Mile.				Per Train Mile in lbs.	Per Vehicle per Mile.
East Indian, Main Line	179,185	£ 60,510 13 5	£ 0 6 9	54.75											40	£ 8 8 5	£ 0 4 1	lbs. 01	lbs.	
" Jubbulpore Line.	11,728	16,231 12 7	1 7 8	45.81																
Great Indian Peninsula	71,156	164,657 15 2	2 6 4	40.61	1.93	3,591	10,213 3 6	2 16 11	2.05	.10					1,920	974 18 0	0 10 2	1.10	.05	
Madras	10,739	26,581 0 0	2 9 6			591	1,775 0 0	3 0 1			676	1,488 0 0	2 4 0		58,405	23,985 0 0	0 8 2			
Bombay, Baroda, and Central India.	21,239	54,756 19 10	2 11 7	46.44	1.96									473	241 10 10	0 10 2	1.03	.04		
Scinde, Punjab, and Delhi.	16,268	89,878 11 8	2 9 0.8	22.98	0.873									30,692	14,809 9 8	0 9 7.8	43.35	1.648		
South Indian -	4,165	11,249 13 4	2 14 0	28.81	1.75	3	12 11 0	4 3 8	.62	.001					3,308	1,816 3 2	0 10 11	22.88	1.39	
Eastern Bengal	14,602	11,756 4 7	0 16 1	58	.77									30	23 3 11	0 15 5				
Oude and Rohilkund	145	247 0 0	1 14 0	.52	.02									16,380	6,483 0 0	0 7 11	39.40	2.97		
Totals for guaranteed Railways.	329,217	386,169 10 7				4,185	12,000 14 6	10 0 8			676	1,488 0 0	2 4 0		111,243	48,341 14 0				
STATE.																				
Calcutta and South-Eastern.	1,298	1,232 10 10	0 19 0	75.96	4.17									7	3 15 9	0 10 10	0.41	0.02		
Nulhatee	618	652 18 1	1 1 1	40.80	3.78									15	7 0 0	0 9 4	5			
Oomrawuttee	180	496 0 0	2 15 0	54	4.5									10	4 13 10	0 9 5	5			
Khangaum	62	165 6 0	2 13 4	85	2									1286.7	622 4 0	0 9 8	66.60			
Holkar	6	9 2 0	1 10 4	.31										222.60	259 5 8	1 3 3.5	2.27	0.14		
Rajpootana	2408.33	7,027 6 10	2 18 4.5	24.52	1.18									4	2 0 0	0 10 0	2			
Wurdha Valley	87	229 0 0	2 12 8	51	3									11.5	5 6 4	0 9 3	.88	.04		
Nazim's	545.5	1,499 2 4	2 15 0	41.91	1.76															
Total for all Railways - Indus Steam Flotilla	334,421.5	397,480 16 8												112,805	49,245 19 7					
														42,960	19,294 0 0	0 8 11.6				
Totals for Railways and Flotilla.	334,421.5	397,480 16 8				4,185	12,000 14 6				676	1,488 0 0		155,765	68,539 19 7					

Moving of  
troops on  
railway.

62. Another subject of interest connected with railway traffic may be briefly referred to, viz., the conveyance of troops by train. Experiments were made in the Punjab, under the directions of General Sir Charles Reid, to ascertain in what time guns and horses could be transported and landed, and the following were the results:—66 horses harnessed were embarked in  $11\frac{1}{2}$  minutes: platforms were fixed in  $4\frac{1}{2}$  minutes, and the horses were reshipped in 2 minutes. Half a battery fully equipped for service was ready to move in 39 minutes. From the time of disembarking to firing the first gun  $6\frac{1}{2}$  minutes elapsed, second gun  $9\frac{1}{2}$ , third  $13\frac{1}{2}$  minutes. The whole, including guns, limbers, wagons, &c. were disembarked in  $35\frac{1}{2}$  minutes. A squadron of cavalry was embarked in 6 minutes.

Police.

63. The difficulties connected with the police arrangements seem to be disappearing, although considerable energy on the part of the superintendents is still necessary to prevent extortions and other malpractices. Considerable cleverness has been shown on the Bombay lines, in detecting culprits and bringing them to justice. In October the body of a man was discovered on the Great Indian Peninsula Railway completely cut in half by a train. It showed traces, however, of ill-usage, which led to suspicions falling on his wife.—The crime was ultimately traced to four men, her accomplices, and they were all found guilty and sentenced to death. The robbery of a passenger by abstracting Rs. 8,500 from his bag when asleep was also detected and traced to seven people, members of a tribe or society, who by quarrelling over their booty, assisted the police in their enquiries.

Feeder roads.

64. In connexion with the subject of traffic, I may mention that the Government of India and the Local Governments have taken up with earnestness the subject of approach roads to stations, and that a systematic attempt appears to have been made to supply, on a comprehensive scale, proper feeders for connecting the railways with the emporia of trade and the agricultural districts in their neighbourhood.

Effect of  
increase of  
native manu-  
factures.

65. The growth of manufactures in India will affect railway traffic in opposite directions. Exports of raw materials will probably be reduced, while imports may be expected to increase. But we may be pretty sure that, in the long run, whatever adds to the prosperity of the country will improve railway receipts.

NET EARNINGS and LOSSES of the INDIAN RAILWAYS during 1874.

Railway.	Amount.	Per Train Mile.	Per-centage of Receipts.
<b>GUARANTEED.</b>			
East Indian, Main Line	£ 2,061,921	s. 5.62	65
" Jubbulpore Line	134,956	4.66	57
Great Indian Peninsula	754,728	4.02	41
Madras	191,305	1.99	36
Bombay, Baroda, and Central India	257,143	5.02	48
Scinde, Punjab, and Delhi	266,443	3.531	40
South Indian	34,840	2.3	42
Eastern Bengal	*167,727	5.59	46
Oude and Rohilkund	71,320	2.48	36
<b>STATE.</b>			
Calcutta and South-eastern	1,975	1.12	22
Holkar	1,631	0.80	15.80
Rajpootana	11,161	1.09	20
Wurdhá Valley	95	.60	4.93
Nizam's	623	.43	5.93
Nulhuttee	2,558	1.64	33
<b>BEAR.</b>			
Oomrawuttee	967	2.62	34.71
Kamgaun	465	2.31	18.85

\* Excluding steamboat service.

## FARES and RATES in use on the INDIAN RAILWAYS.

Railway.	Passengers.					Goods.					
	Fare for travelling One Mile.					Rate for conveying One Ton One Mile.					
	First Class.	Second Class.	Intermediate Class.	Third Class.	Fourth or Coolie Class.	Of First or Lowest Class.	Of Second Class.	Of Third Class.	Of Fourth Class.	Of Fifth or Highest Class.	Special.
<b>GUARANTEED.</b>	pies.*	pies.	pies.	pies.	pies.	pies.	pies.	pies.	pies.	pies.	pies.
East Indian, Main Line.	18	9	4½	8	NH	9·078	18·61	18·146	22·683	27·221	From 4·54 pies for coal up to 9·078 pies.
East Indian, Jubulpore Line.	18	9	4½	8	—	9·078	18·61	18·146	22·683	27·221	From 5·44 pies up to 9·078 pies.
Great Indian Peninsula.	18	9	—	4	2½	10	14	24	34	48	
Madras	15	6½	—	3½	2	12	14	18	24	36	From 6½ pies up to 10 pies.
Bombay, Baroda, and Central India.	15	7	Third By Mail Train. 4	8	—	11·49	14·48	18·63	31·19	43·39	From 8 pies up to 8·62 pies.
Scinde, Punjab, and Delhi.	18	9	4½	8	—	9·60	14·81	19·26	25·37	29	
South Indian	12	5	—	2	—	12	14	18	24	36	From 6 pies up to 10 pies.
Eastern Bengal	12	6	—	4½	3	9·35	14	18·66	28	56	From 6·15 pies up to 11·23 pies.
Oude and Rohilkund	Upper 9	Upper Reserved 36	Lower 2	Lower Reserved 3	L. Resrvd. Cmpmnt. 16 & 24	9·08	18·62	18·16	22·7	27·25	From 5·40 pies up to 6·80.
<b>STATE.</b>	Upper 9·00	Lower 2·67	—	—	—	—	—	—	—	—	
Calcutta and South-eastern.	Upper 9·00	Lower 2·67	—	—	—	—	—	—	—	—	
Holkar	12·23	4·58	—	2·29	—	13·76	20·64	27·52	—	—	From 6·88 pies.
Rajpootana	10·46	5·06	—	2·24	1·26	13·52	18·04	25·40	—	—	From 10·44 pies.
Wardha Valley	16	9	—	4	2½	10	14	24	34	48	From 5 pies up to 8 pies.
Nizam's	18	9	—	4	2½	10	14	24	34	48	"
Nulbuttee	28	14	—	7	4·57	18·07	21·56	30	47·55	68·46	From 7·77 pies.
<b>BERAR.</b>											
Oomrawuttee	18	9	—	4	2½	10	14	24	34	48	From 5 pies up to 8 pies.
Kamgann	18	9	—	4	2½	10	14	24	34	48	"

\* 8 pies = 1d.

**Number of LOCOMOTIVES and VEHICLES owned by the Guaranteed Railway Companies.**

Railway Company.	Locomotives.			Passenger Carriages.		Goods Trucks and Waggon.		Total Number of Vehicles on 31st December 1874.
	Former Number.	Added in 1874.	Total Number, 31st Dec. 1874.	Former Number.	Added in 1874.	Former Number.	Added or Deducted in 1874.	
East Indian - -	525	[less 7]	518	924	—	6,794	[less 130]	7,588
Great Indian Peninsula - -	330	15	345	1,296	13	6,684	—	7,993
Madras - - -	126	—	126	368	15	3,267	[less 67]	3,583
Bombay, Baroda and Central India } - - -	85	—	85	235	[less 2]	2,844	[less 36]	3,041
Scinde, Punjab, and Delhi - -	135	—	135	444	—	1,941	72	2,462
South Indian - - -	21	4	25	43	48	347	26	464
Eastern Bengal - - -	43	—	43	158	—	705	2	865
Oude and Rohilkund - - -	60	2	62	195	48	556	75	874
<b>Totals - - -</b>	<b>1,325</b>	<b>28</b>	<b>1,339</b>	<b>3,663</b>	<b>103</b>	<b>23,118</b>	<b>[less 38]</b>	<b>26,870</b>

The following statement gives the comparative quantities of the chief articles of traffic carried during the last two years. A very large increase will be observed in grain, seeds, and rice. Coal also has increased. Cotton on the Bombay lines increased, but on the East Indian diminished:—

STATEMENT showing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried on the INDIAN RAILWAYS in 1873 and 1874.

Articles.	East Indian, Main Line.		East Indian, Jubbulpore Line.		Great Indian Peninsula.		Madras.		Bombay, Baroda, and Central India.		Scinde, Punjab, and Delhi, and Indus Steam Flotilla.		South Indian.		Eastern Bengal.		Oude and Rohilkund.	
	1874.	1873.	1874.	1873.	1874.	1873.	1874.	1873.	1874.	1873.	1874.	1873.	1874.	1873.	1874.	1873.	1874.	1873.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Cloth	See piece goods.		See piece goods.		—	—	5,788	5,466	See piece goods.		See piece goods.		2,182	2,098	—	—	—	—
Coal	505,519	417,878	2,506	212	917	1,524 including coke.	324	817	2,742	2,067	507	321	—	—	8,643	11,289	1,414	506
Cocoa-nuts	See dried fruits.		See dried fruits.		9,625	8,821	2,401	2,398	3,768	3,737	See dried fruits.		—	—	—	—	—	—
Coffee	—	—	—	—	—	—	4,834	5,250	29	25	49	85	—	—	—	—	—	—
Cotton	21,347	43,095	1,491	3,805	110,700	84,252	20,796	19,328	46,248	37,969	5,974	7,166	—	—	471	426	4,401	2,336
Dried Fruits	5,081	4,905	2,737	2,836	12,444	12,225	—	—	3,807	6,072	6,280	6,249	—	—	—	—	—	—
Firewood	12,346	17,573	8,817	14,728	25,741	16,601	9,588	10,446	8,025	8,412	14,848	24,938	—	—	—	—	3,707	88
Grain	340,248	165,254	63,639	28,007	232,036	133,851	33,688	24,735	32,188	27,284	246,339	138,596	86,940	32,312	15,241	11,612	39,439	19,736
Green Fruits and Vegetables	—	—	—	—	12,336	10,971	5,537	4,611	12,988	6,893	2,253	2,061	3,513	2,760	—	—	—	—
Hides	22,913	23,633	835	1,768	2,693	4,697 including horns.	6,152	7,954	638	1,292	2,778	3,490	807	690	5,355	2,722	2,179	1,345
Iron	60,720	43,487	4,348	2,710	—	—	6,817	5,499	See metal.		See metal.		—	—	28	44	—	—
Jagree and Sugar	50,686	55,622	20,146	21,132	20,958	21,630	13,427	12,149	22,223	21,803	29,778	29,685	—	—	8,058	7,796	17,548	9,693
Jute	1,016	759	265	207	—	—	—	—	—	—	See hemp & flax.		—	—	112,407	124,049	510	144
Metal and Hardware	—	—	—	—	39,176	46,579	—	—	5,809	3,934	11,591	7,205	—	—	620	783	4,763	2,908
Military Stores	14,488	15,565	886	810	7,366	8,690	4,197	5,091	1,677	1,978	10,305	10,972	15	33	684	857	3,263	4,055
Oil	3,086	2,097	66	76	9,259	5,910	5,970	6,219	1,342	851	3,927	2,949	1,385	1,397	—	—	630	269
Opium	7,648	7,173	—	1	4,311	3,852	—	—	902	947	See medicines & drugs.		—	—	21	14	332	258
Piece Goods	44,372	42,450	4,755	3,791	16,278	13,115	—	—	7,280	6,762	11,359	7,380	—	—	10,289	9,913	4,930	2,008
Rice	449,978	122,205	1,792	1,109	—	—	63,742	82,672	See grain.		See grain.		See grain.		101,452	15,746	—	—
Salt	123,182	120,318	5,214	4,629	65,802	64,926	43,051	46,813	32,117	23,632	11,344	11,542	11,401	10,534	3,117	1,350	24,734	18,166
Seeds	129,586	110,462	9,570	4,784	63,801	36,565	15,029	12,285	8,968	7,790	29,897	22,570	6,251	3,826	85,623	11,371	7,153	3,844
Silk	664	608	71	31	452	256	—	—	See piece goods.		161	443	—	—	222	270	—	—
Timber	19,154	15,154	1,038	338	15,569	17,094	14,797	16,336	7,691	7,183	6,291	5,815	—	—	—	—	17,022	9,228
Tobacco	9,508	11,403	1,354	814	3,313	2,331	6,352	5,203	7,537	5,821	958	871	944	692	14,532	11,637	352	367
Twist	1,869	2,161	264	470	4,928	4,265	4,095	3,804	1,573	1,390	813	3,797	—	—	—	—	693	278
Wines, Spirits, &c.	14,285	16,398	1,006	897	4,254	4,611	1,923	1,583	630	602	4,400	2,327	—	—	189	200	2,704	1,873
Wool	—	—	—	—	162	270	—	—	1,950	2,238	3,698	6,767	—	—	—	—	—	—

(1874)

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## STATEMENTS relating to the PASSENGER and GOODS TRAFFIC and the GROSS

TABLE NO. 1.—STATEMENT of TRAFFIC on the INDIAN

Railway.	Actual Number of Miles open on 31st December, and Average Number of Miles of Open Line during 1874.						Number of Miles of Sidings on 31st December 1874.	Passenger Traffic.							Number of Holders of Season and Periodical Tickets.
	Double.		Single.		Total.			Number of Passengers; (exclusive of Holders of Season and Periodical Tickets).							
	Actual.	Average.	Actual.	Average.	Actual.	Average.		By First Class.	By Second Class.	By Intermediate Class.	By Third Class.	By Fourth or Coptic Class.	Total by all the Classes.		
<b>GUARANTEED.</b>															
East Indian, Main Line	410½	410½	860½	860½	1,270½	1,270½	2791	44,061	95,760	396,661	3,359,190	Nil	5,792,661	9,171	
East Indian, Jubbul-pore Line	—	—	333½	333½	333½	333½	314	2,771	3,667	3,964	284,785	—	330,177	—	
Great Indian Peninsula	327½	327½	939	939	1,266½	1,266½	2024	27,507	106,498	—	520,692	2,475,597	3,180,694	756	
Madras	3½	—	858	—	858	—	854	14,787	52,918	—	2,136,358	569,406	2,705,664	210	
Bombay, Baroda, and Central India	23	23	405½	401	428½	424	694	20,750	160,014	—	Third Class Mail Ordy. 372,144	3,176,183	3,737,096	4,089	
Soude, Punjab, and Delhi	4½	4½	659	660	663½	663½	103½	14,623	28,608	18,932	3,049,329	—	3,112,102	—	
South Indian	—	—	187	—	187	—	154	2,781	15,757	—	1,499,020	—	1,517,544	2	
Eastern Bengal	159½	—	153½	—	159½	—	50½	29,342½	21,041½	—	329,216	1,127,529	1,537,490	2,610	
Oude and Rohilkund	—	—	540	524	540	524	44	17,564 Upper	—	—	1,977,320 Lower	—	1,994,880	—	
<b>STATE.</b>															
Calcutta and South-eastern	—	—	23	—	23	—	23	—	3,483 Upper	—	—	431,735 Lower	435,218	—	
Holkar's	—	—	37	36	37	36	42	682	2,704	—	106,091	—	106,773	—	
Rajpootana	—	—	261½	162½	291½	162½	164	1,925	4,264	—	335,706	442,534	625,580	2	
Wardha Valley	—	—	18	18	18	18	14	223	250	—	1,074	7,810	9,963	—	
Nizam's	—	—	121	121	121	121	0	550	3,538	—	16,211	55,969	75,568	—	
Nulhuttee	—	—	27½	—	27½	—	14	3704	1,9864	—	4,0564	63,2064	69,270	—	
<b>BNAR.</b>															
Oomrawuttee	—	—	6	6	6	6	—	685	1,806	—	—	478	44,869	—	
Kanagun	—	—	8	8	8	8	—	220	688	—	6,601	2,196	7,805	—	
Totals for Railways	926½	766½	5,376½	48,973½	6,148	4,739	866½	180,191	543,618	415,937	14,779,983½	3,352,046½	24,271,776	17,420	
Indus Steam Flotilla	—	—	—	—	—	—	—	249	182	—	8,252	—	8,683	—	
Totals for Railways and Flotilla	—	—	—	—	—	—	—	180,440	543,800	—	14,788,235½	—	24,280,459	—	

RECEIPTS and EXPENSES for the Year ended 31st December 1874.

RAILWAYS during the Year ended 31st December 1874.

Goods Traffic.										
Number of Live Stock.	Number of Tons of Minerals.			Number of Tons of General Merchandise.						
	Number of Tons of Coal and Coke.	Number of Tons of all other Minerals.	Total Number of Tons of Minerals.	Of First or Lowest Class.	Of Second Class.	Of Third Class.	Of Fourth Class.	Of Fifth or Highest Class.	Special and Sundry.	Total of all Classes.
19,805	508,519	—	508,519	1,363,901	128,480	45,110	26,595	4,189	74,387	1,632,562
130	2,508	—	2,508	146,440	18,588	5,835	1,996	295	6,441	174,604
261,064	942	—	942	510,917	161,211	31,248	39,464	5,553	108,000	including coal 852,335
10,881	—	—	—	128,707	45,193	21,910	7,090	3,897	165,939	370,586
174,493	28,208	98,785	127,048	61,081	41,271	46,196	1,364	1,338	95,687	267,528
2,270	—	28,464	28,464	103,346	48,389	19,510	15,931	1,854	277,471	458,400
2,188	—	—	—	67,724	288	140	609	815	63,261	122,330
3,159	5,642	11,414	17,056	115,653	49,826	3,335	1,476	261	168,516	329,097
1,553	1,408	—	1,408	51,112	8,940	8,924	4,502	720	133,408	including coal 209,004
113	392	—	392	—	—	—	—	—	29,574	29,574
—	—	—	—	13,517	1,058	1,918	—	—	1,054	27,547
—	89	—	89	54,630	3,447	599	—	—	68,276	116,942
—	—	—	—	5,487	3,761	94	38	1	—	9,381
—	—	—	—	2,916	1,172	525	100	124	—	4,837
1	4,061	—	4,061	2,902	1,156	1,133	399	22	7,36	12,367
—	—	—	—	7,367	21,033	901	197	81	—	29,409
—	—	—	—	3,155	22,579	305	155	3	—	24,198
474,437	548,787	138,683	687,450	2,046,333	546,292	187,579	97,570	18,978	1,164,219	4,663,016
—	—	—	—	—	—	—	—	—	—	33,608
—	—	—	—	—	—	—	—	—	—	4,906,624

## STATEMENT OF TRAFFIC ON THE INDIAN RAILWAYS

Railway.	Number of Engines and Vehicles used in conveying Traffic.											Number of Miles in shunting.				
	Engines.	Carriages.					Total Number.	Trucks.	Average Number of Vehicles in each Train.				By Passenger (including Special and Troop) Trains.	By Goods (including Construction Materials for other Railways) Trains.	By Mineral Trains.	
		First Class.	Second Class.	Intermediate Class.	Third Class.	Fourth Class.			Carriages in each Passenger Train.	Trucks in each Goods Train.	Carriages.	Trucks.				
<b>GUARANTEED.</b>																
East Indian, Main Line	485	1st half 77 2nd " 77	85 85	47 60	321 310	—	530 538	5,311 5,200	16½ 16½	20½ 20½	13½ 14½	7½ 8½	1,198,515½	4,518,088½	177,478½	
" Jubbulpore Line	41	1st half 8 2nd " 8	13 13	4 4	28 28	—	58 58	835 835	14½ 14½	28 27	6½ 6	16½ 17½	188,920½	245,796½	309½	
Great Indian Peninsula	331		79	146	37	369	67	748	6,760	14'40	24'49	7'58	20'0	1,312,373	2,027,277	—
Madras	94		27	64	36	200	39	375	2,996	12	18	7	8	24,757	410,387	—
Bombay, Baroda, and Central India	64		11	28	15	121	—	175	2,532	8'7	41'25	9'0	15'34	362,666½	397,694	—
Scinde, Punjab, and Delhi	158		49	75	8	230	—	271	3,045	30			587,148	718,365	—	
South Indian	25	composite	14	8	—	54	—	76	incl. break vans 338	—	—	8	15	—	—	—
Eastern Bengal	48		20	16	—	36	68	134	781	15	34	4	25	216,810½	178,383½	—
Oude and Rohilkund	56	upper	21	lower 128	composite 10	steel 10	—	187	429	16	18	21	24	5,480	35,861	17,636
<b>STATE.</b>																
Calcutta and South-eastern	5		—	upper 5	—	—	lower 20	25	342	—	—	10	9	—	—	—
Holkar's	5		4	5	—	29	3	41	57	12	17	9	6	24,476	8,107	—
Rajpootana	25		9	10	—	70	8	122	397	—	—	10'44	11'11	2,227	44,883	—
Wardha Valley	1		—	—	composite 1	2	2	5	23	—	16'35	4'42	13'36	95	798	—
Nizam's	5		4	6	composite 1	10	10	31	70	14'43	21'68	13'24	12'00	5,768	3,946	—
Nulluttee	5		2	—	composite 1	—	3	6	17	—	—	6	15	—	—	—
<b>BRAB.</b>																
Oomrawuttee	2		—	—	composite 1	2	2	5	33	—	20'20	4'65	10'60	—	78	—
Kangraon	2		—	—	composite 1	2	2	5	33	—	23'70	4'00	14'19	—	632	—
Totals														3,905,236½	8,488,086	185,523

during the Year ended 31st December 1874—continued.

travelled by Trains (except piloting, and assisting).					Number of Ton Miles (expressed in the Number of Tons moved One Mile).												
By Mixed Passenger and Goods Trains.		By Trains conveying Materials for Revenue Purposes.	Total Number of Train Miles.	Number of Train Miles per open Mile.	Excess Luggage, Parcels, Carriages, Horses, Dogs, &c. conveyed in Passenger Trains.	Goods Traffic.										Proportion of Up and Down Traffic.	
(P.)	(G.)					General Merchandise.								Total Mineral and General Merchandise.	Up.		
		Minerals.	First or Lowest Class, except Special.	Second Class.	Third Class.	Fourth Class.	Fifth Class.	Special and Sundry.	Total of all Classes.								
948,083†	486,502†	220,490†	7,551,167	5,900'60	1,854,765 horses, &c. 3,209,126	86,768,571	285,047,924	55,174,632	14,006,790	10,827,099	1,206,124	160,784,702	687,164,335	613,833,906	47	53	
61,906†	101,872	4,310†	584,065	3,610'84	202,831 horses, &c. 204,288	311,783	26,397,400	2,530,070	1,228,072	415,418	44,864	1,440,388	35,057,106	32,368,889	24	76	
155,183	429,816	—	3,324,654	3,099	—	230,041	130,903,887	47,360,878	8,644,215	9,268,088	1,710,209	927,000	196,714,877	186,863,018	57	43	
691,801	798,528	—	1,925,473	—	874,115	—	18,266,411	7,048,214	3,571,036	1,521,344	520,634	26,022,007	57,640,606	57,640,606	58'15	41'85	
119,918	202,217†	41,872†	1,023,078†	2,415	125,348 luggage only.	2,292,470	12,915,762	8,185,183	11,398,101	234,017	417,065	10,584,936	43,735,078	46,035,543	57'28	42'77	
89,049	88,050	104,150	1,586,732	1,195	317,806	1,947,853	13,137,708	7,590,898	3,373,430	1,907,435	05,499	51,116,827	77,481,895	79,279,448	33	67	
*314,206		9,616	333,822	1,732	69,604	—	3,996,722	11,056	8,376	50,307	12,718	3,614,701	7,093,880	7,093,880	61	39	
†32,670	130,991	—	558,555	3,529	200,083	1,703,098	12,691,148	6,654,314	406,466	162,771	21,426	20,891,038	40,707,808	42,400,906	30'06	69'95	
239,977	278,116	46,671	7.7 21	1,144	183,069	47,831	5,156,579	980,509	987,519	523,625	74,058	8,991,708	16,696,298	16,744,129	not kept.		
23,923	14,354	180	36,457	1,373	2,348	3,346	—	—	—	—	—	678,383	678,383	681,728	96'33	3'77	
4,998	3,094	2,702	43,277	1202'14	—	—	475,603	38,066	65,042	—	—	30,012	614,623	614,623	30	70	
110,222	62,639	—	210,971	1,303	63,952	1,941	2,791,783	276,687	47,068	—	—	1,903,445	5,108,903	5,111,844	32	68	
1,064	1,368	—	3,819	201	—	—	103,410	71,441	1,781	731	21	—	177,361	177,364	—	—	
14,207	8,225	—	20,146	241	—	—	239,874	155,451	50,977	11,147	9,168	—	475,617	475,617	—	—	
12,722	21,204	133	54,059	1,250	8,927	110,665	67,002	30,550	30,372	10,785	598	197,843	338,050	448,715	79'12	20'88	
4,552	2,750	—	7,380	1,230	—	—	44,200	126,193	4,808	753	403	—	176,454	176,454	—	—	
1,233	1,951	—	4,916	503	—	—	25,243	130,633	2,445	1,247	25	—	209,595	209,595	—	—	
2,503,504	2,636,752	432,134	18,475,322			93,323,593	512,251,580	136,973,462	43,896,218	24,935,067	4,392,494	227,232,746	1,009,661,597	1,102,953,185			
5,454,542																	

† There was an error in the return sent home, the figures for passengers and goods having been the same, viz., 31,030. They have been corrected as well as they could be.

TABLE No. 3.—GROSS RECEIPTS of the INDIAN RAILWAYS

Railway.	Passenger Traffic.														
	Receipts from Passengers.							Total Receipts from Passengers.	Total Receipts from Excess Luggage, Parcels, Carriages, Horses, Breeches, &c. conveyed in Passenger Trains.	Receipts for Mail Service.	Receipts from Special Trains.	Receipts from Troop Trains.	Total Receipts from Passenger Traffic—(P.)	Passenger Receipts per Train Mile.	Receipts from Live Stock.
	First Class.	Second Class.	Intermediate Class.	Third Class.	Fourth or Cattle Class.	Holders of Season or Periodical Tickets.	Third class Mail Ordinary								
<b>GUARANTEED.</b>	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
East Indian, Main Line	38,314	31,133	31,380	544,719	—	3,719	649,255	62,305	3,032	2,408	13,351	742,416	6'24	14,545	
„ Jubbulpore Line	5,343	3,855	1,638	41,854	—	—	51,639	4,755	1,006	184	8,360	68,695	5'95	53	
Great Indian Peninsula	29,530	25,673	—	90,433	173,431	898	334,991	47,254	2,208	839	63,157	438,544	5'98	6,015	
Madras	11,535	10,968	—	154,569	31,268	571	198,303	20,519	—	636	6,479	226,369	6'316	1,713	
Bombay, Baroda, and Central India	4,771	10,548	49,051	117,373	—	3,106	184,844	14,953	165	1,050	2,358	203,382	8'43	9,329	
Scinde, Punjab, and Delhi	9,730	9,339	3,151	153,980	—	—	175,140	16,946	577	462	6,149	199,274	5'003	788	
South Indian	717	1,336	—	46,003	—	5	48,110	3,127	7	536†	—	50,780	3'2	50	
Eastern Bengal	3,532	3,191	—	19,435	59,764	1,006	87,578	10,838	60	544	—	99,029	9'13	41	
Oude and Rohilkund	—	Upper class 4,926	—	—	Lower class 94,956	—	99,382	7,537	—	278	697	109,283	8'94	1,663	
<b>STATE.</b>		Upper class 209	—	—	Lower class 5,407	—	5,616	161	NIL	24	NIL	5,791	4'84	12	
Calcutta and South-eastern	—	Upper class 209	—	—	Lower class 5,407	—	5,616	161	NIL	24	NIL	5,791	4'84	12	
Holkar's (11 months)	145	152	—	3,641	—	—	3,938	279	—	117	34	4,368	2'96	—	
Rajpootana	427	541	—	13,161	8,470	12	21,041	1,181	—	25	—	22,347	4'063	—	
Wardha Valley	31	18	—	60	174	—	283	33	—	—	—	316	5'45	—	
Nizam's	391	542	—	1,480	3,806	—	6,319	547	—	74	132	6,977	7'76	7	
Nulhuttee	195	300	—	394	3,417	—	4,306	643	90	30	—	5,269	8'22	1	
<b>BEAR.</b>															
Oomrawuttee	36	45	—	549	—	—	630	71	—	—	1	702	3'06	—	
Kamgaon	14	12	—	91	11	—	126	28	—	—	—	156	2'63	—	
<b>Totals for Railways</b>	104,780	102,797	85,220	1,186,567	375,704	9,717	1,362,755	199,788	7,142	6,801	105,323	1,184,197	—	34,216	
Indus Steam Flotilla	1,413	223	—	3,619	—	—	5,260	170	—	—	—	5,450	—	176	
<b>Totals for Railways and Flotilla</b>	106,193	103,020	85,220	1,190,186	375,704	9,717	1,368,015	199,958	7,142	6,801	105,323	1,189,647	—	34,392	

during Year ended 31st December 1874.

Goods Traffic.																		
Receipts from Minerals.			Receipts from General Merchandise (exclusive of Live Stock and Minerals).								Total Receipts from Goods Traffic—(G.)		Total Receipts from Passenger and Goods Traffic—(P.)+(G.)		Total Miscellaneous Receipts—(M.)		Total Receipts from Passenger, Goods, and Miscellaneous—(P.)+(G.)+(M.)	
From Coal and Coke.	From other Minerals.	Total Receipts from Minerals.	From First or Lowest Class, except Special.	From Second Class.	From Third Class.	From Fourth Class.	From Fifth or Highest Class.	From Special and Sunday.	Total.	Total Receipts from Goods Traffic—(G.)	Goods Receipts per Train Mile.	Total Receipts from Passenger and Goods Traffic—(P.)+(G.)	Passenger and Goods Receipts per Train Mile.	Total Miscellaneous Receipts—(M.)	Miscellaneous Receipts per Train Mile.	Total Receipts from Passenger, Goods, and Miscellaneous—(P.)+(G.)+(M.)	Total Receipts per Train Mile.	
£	£	£	£	£	£	£	£	£	£	£	s.	£	s.	£	s.	£	s.	
241,532	—	241,532	1,385,140	352,305	181,200	97,480	18,718	115,091	2,100,044	2,350,948	9'06	3,063,363	8'44	94,280	257	3,157,643	8'607	
1,445	—	1,445	93,429	17,903	9,800	4,061	688	4,057	130,998	131,146	7'53	199,941	6'72	25,195	1'214	235,087	8'108	
701	—	701	678,721	469,678	108,933	139,980	47,475	18,233	1,365,275	1,369,991	11'15	1,868,535	9'28	40,613	20	1,946,548	9'42	
—	—	—	92,271	28,321	28,732	16,029	7,022	97,976	291,202	292,915	4'846	519,284	5'304	22,145	230	541,429	5'624	
*1,105	6,074	7,179	70,873	39,395	101,336	3,435	6,630	44,064	265,031	304,288	12'13	507,670	10'24	39,351	60	537,021	10'94	
—	5,531	5,531	60,217	53,059	31,022	23,107	4,330	183,649	355,884	362,193	8'982	561,467	7'579	43,808	0'591	605,275	8'170	
—	—	—	23,546	81	74	311	244	13,335	37,391	37,941	3'4	86,731	5'6	2,468	1	91,199	5'7	
3,827	2,467	6,294	56,106	44,344	3,632	2,178	575	98,188	205,008	211,084	19'83	310,063	11'10	16,714	69	326,777	11'70	
188	—	188	23,504	7,403	9,344	6,222	1,087	33,171	85,751	87,527	5'40	196,870	6'31	3,531	12	200,401	7'04	
24	Nil	24	Nil	Nil	Nil	Nil	Nil	2,670	2,670	2,708	3'77	8,497	4'43	1,451	76	9,948	5'19	
—	—	—	3,597	445	1,070	—	—	149	5,261	5,261	9'47	9,629	4'75	690	0'34	10,319	5'09	
8	—	8	19,659	2,600	635	—	—	10,844	33,738	33,746	6'277	56,593	5'145	5,104	464	61,697	5'609	
—	—	—	775	744	36	21	1	2	1,576	1,576	11'85	1,892	9'91	25	18	1,917	10'09	
—	—	—	1,180	1,172	709	187	209	15	3,478	3,480	6'23	10,457	7'18	51	68	10,508	7'21	
671	—	671	467	352	472	275	23	833	3,422	3,094	3'92	3,362	4'38	149	69	3,511	6'02	
—	—	—	407	1,478	113	25	27	13	2,063	2,063	14'59	2,705	7'50	21	65	2,726	7'55	
—	—	—	203	2,015	40	35	1	1	2,299	2,299	16'52	2,455	12'22	12	66	2,467	12'28	
249,206	14,052	263,258	2,410,094	1,059,345	427,401	293,592	89,838	627,297	4,910,315	5,902,289		7,536,466		305,018		7,831,485		
									71,163	71,339		76,759		206		76,975		
									4,961,478	5,273,608		7,633,225		305,224		7,758,460		

\* Earth trains.

† Municipal meat train traffic.

‡ Local salt trains, Kharagora.



during Year ended 31st December 1874.

Rates and Taxes.			Compensation for Personal Injury, &c. Damage and Loss of Goods.				Legal and Parliamentary Expenses.			Miscellaneous Working Expenditure, not included in the foregoing.			Total Working Expenditure.		
Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.		Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.
			Personal.	Goods.											
£	d.		£	£	d.		£	d.		£	d.		£	s.	
5,007	10	16	Nil	3,072	13	19	1,336	04	04	143,786	471	451	1,135,724	307	3532
Nil	Nil	Nil	Nil	412	17	17	1	Nil	Nil	11,049	494	508	100,081	345	4258
908	06	03	2,948	2,237	32	23	1,372	06	07	91,518	560	495	1,058,581	540	5726
646	03	12	402	90	06	09	916	11	17	39,705	483	733	350,124	303	6407
650	15	13	46	351	10	07	340	07	06	46,383	1099	874	270,878	547	5212
133	0019	0021		354	0144	0137	372	0056	0061	53,452	8039	8831	348,678	433	56731
87	06	1		7	005	007				5,787	43	03	55,374	34	607
666	13	20	1	798	24	24	2,307	106	78	30,770	1323	041	170,513	010	5213
				620	24	32	31	01	01	20,948	813	1045	120,032	417	6141
33	032	032	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1,034	660	1000	7,794	407	7334
Nil	Nil	Nil	Nil	5	003	003	Nil	Nil	Nil	1,476	818	1430	8,638	4	8419
				12	01	03				7,531	823	1221	49,098	452	8053
										313	2281	1884	2,022	1052	10493
										460	411	473	9,856	673	9407
15	11	13		3	02	03				739	550	927	5,723	328	6721
										1,233	4107	4606	3,733	1017	13471
										804	4808	3259	2,002	907	8115
													3,702,601		
													73,046		95872
													3,775,647		



## SUMMARY.

66. During the year 1874, 558 additional miles of railway were completed, bringing the whole extent now open in India up to 6,273 miles, of which 5,546 have been made with a single, and 727 with a double line of rails; 5,686 have been constructed on the 5' 6", and 587 on the metré gauge.

67. The gauge for the Indus Valley and the Northern Punjab Railways, has been changed from the metré to the 5' 6", and the necessary measures have been taken for proceeding with the works accordingly. One of the most important bridges in the whole railway system of India has just been opened, viz., the one over the Ganges at Cawnpore, which connects the Oude and Rohilkund lines with the East Indian, and thus brings these provinces into direct railway communication with the rest of India.

68. It has been decided during the year to add to the lines already sanctioned, one in British Burmah, to connect Rangoon with Prome, a distance of 160 miles, and another in Rajpootana, extending north from Indore, and joining at Ajmere the railway now being constructed to that place from Delhi.

69. The floods of last season were unusually severe, but serious damage to railway works was confined to the Madras Railway, on which several large bridges were either wholly or partially destroyed, and the traffic was interrupted for several weeks.

70. The railways of Bengal and the Upper Provinces played an important part during the famine. Without their aid, the exertions which were made to supply food to the districts where scarcity prevailed would have been ineffectual. The total quantities delivered by the railways were 306,697 tons of corn, 440,886 tons of rice, and 95,113 tons of pulses, of which 616,993 tons were conveyed from Calcutta, 172,333 from the North-west, and 53,370 from the Central Provinces. The officers both of Government and of the railway companies who were engaged in the work received the special thanks of the Government of India for the zealous and efficient manner in which they performed their duties.

71. In the course of the year 1874 railway material, consisting of permanent way, bridge girders, machinery, and miscellaneous stores, and weighing 156,636 tons, were sent out; also 108,478 tons of fuel. On their arrival in India, these goods had cost including freight about 2,480,000*l.* Since the railways were commenced no less than 4,893,535 tons of materials have been shipped from this country, the cost of which amounted to 33,140,453*l.* before they were despatched.

72. Of the 95,119,119*l.* of money which has been raised by the eight existing guaranteed companies, 81,538,000*l.* is held by 62,300 proprietors, of whom 56,797 are on the English register (24,050 possessing stock or shares to the amount of 1,000*l.* and upwards, and 32,747 of less amount), and 864 are on the Indian registers, of whom 448 are Europeans, and 416 natives. The remaining 13,580,687*l.* has been issued in the shape of debentures or debenture stock.

73. The total number of persons employed on the railways on the 30th September last was 101,595, of whom 96,013 were natives, 3,239 Europeans, and 2,343 East Indians. The employment of natives and Indian-born labourers is becoming more general, and they are by degrees qualifying for work in the engineering and mechanical departments. Schools are provided for the children of Europeans, and the returns from those connected with the East Indian Railway show that the attendance is very fair.

74. The capital expenditure during the year ending 31st March, was about 4,126,667*l.*; 2,694,124*l.* being expended on state lines, and 1,432,543 on guaranteed lines. Of this amount, 2,207,119*l.* was disbursed in England, and 1,919,548*l.* in India. The total amount which has been expended on the railways is about 101,324,000*l.*, of which 92,786,426*l.* represents guaranteed, and 8,537,574*l.* State lines. There was a balance of 2,332,693*l.* to the credit of the Companies on the 1st April last. Of the whole 95,119,119*l.* raised by them, 82,627,185*l.* receives interest at the rate of 5 per cent., and the rest from 4 to 4½ per cent. per annum.

75. The sums advanced by Government for guaranteed interest during the year 1874-75 amounted to 4,694,355*l.*, towards which about 3,562,000*l.* was contributed from the earnings of the railways after deducting the half surplus profits realized by three of them, leaving 1,132,355*l.* to be made up from the revenues of the country. This is about 305,000*l.* less than the previous year, an improvement in great measure due to the large traffic in grain during the threatened famine. The East Indian Railway alone earned 510,538*l.* more than the previous year; the Great Indian Peninsula also showed an increase of 134,145*l.*, the

Bombay, Baroda, and Central India of 48,248*l.*, and the Sinde, Punjab, and Delhi of 113,770*l.* The Madras on the contrary fell off 86,393*l.*, partly in consequence of the damage done to the line by the floods.

76. The total number of passengers carried in 1874 was 24,280,459 compared with 23,557,605 of 1873. The lowest class amounted to 23,556,218 or 97·01 per cent. of the whole; the second class to 543,800 or 2·21 per cent.; the first to 180,440 or ·78 per cent. The receipts from passengers were 2,183,015*l.*, of which 1,650,110*l.* or 75·58 per cent. was received from the lowest class, 102,990*l.* or 4·70 per cent. from the second, and 106,198*l.* or 4·81 per cent. from the first class.

77. The general merchandize carried amounted to 4,663,016 tons, exclusive of 33,608 conveyed by the Indus Flotilla, compared with 4,683,700 of the previous year. The minerals were 687,450 tons compared with 671,004. Of the whole amount of goods, 39 per cent. was conveyed on the main line of the East Indian Railway. There was a falling off in the general traffic of the country, but an increase on that line of 711,000 tons, and on the Punjab and Delhi of 130,560 tons, due to the demands for grain before referred to. The receipts from goods increased by 981,603*l.*, from 4,292,005*l.* in 1873 to 5,273,600*l.* in 1874.

78. The number of miles travelled by trains in 1874 was 18,475,322 compared with 15,650,597 of the previous year, and the ton mileage was 1,102,956,185 against 802,704,329.

79. Putting aside the cases of accidents arising from the running over of cattle and from minor causes, when no injury was done to passengers or stock, the number of accidents to trains amounted to 263. Of these, 68 were collisions, 103 were from vehicles getting off the lines, and 92 from fire. One passenger was killed and 43 injured from causes over which they had no control. The proportion of killed to the number who travelled was 1 to 24,500,000, or ·04 per million. The proportion injured was 1 to 571,000, or 1·75 per million. In addition to these, 22 were killed and 27 injured from causes arising from their own imprudence or misconduct.

80. The expenses of maintenance and working amounted to 3,682,601*l.* (exclusive of 73,646*l.* for the Indus Flotilla), being at the rate of 3·98*s.* per train mile compared with 4·46*s.* of the year 1873. The receipts per train mile came to 3·39*s.* The ratio of expenditure to gross receipts was on an average 48 per cent. There is a marked difference in the cost of doing the work on the various lines, partly due to their varying circumstances, but chiefly to the character of the management. A very careful and accurate comparison can be made between the six principal undertakings on this point by means of the tables prepared by Mr. A. M. Rendel, the consulting engineer for State railways, at this office, and to the East Indian Railway Company. The chief objects should be to carry the greatest amount of traffic at the lowest possible cost, and efforts in this direction are greatly aided by a careful analytical examination of results. We then have the particulars which serve as a guide for arriving at sound and economical principles of management. One unavoidable cause of expense on most of the lines is the high cost of fuel, and efforts are being made in all directions to increase the supply of native coal. There is good ground for expecting that fresh sources will soon be opened, and that the railways themselves will convey coal to distant parts at a charge which will enable it to compete with that imported from this country and Australia, and also with wood. The importance of the subject is illustrated by the fact that while the East Indian Railway Company obtained coal at an average cost of 24*s.* per ton at the points of consumption, the cost on the Madras and Bombay lines averaged from 58*s.* to 70*s.* per ton.

81. The traffic in future may be expected to be improved by the measures which have been taken by the Government of India and the Local Governments to supply, on a comprehensive scale, proper feeder roads for connecting the railways with the emporia of trade and the agricultural districts in their neighbourhood. When these are executed, and when fuel at a moderate cost is available, all that will be required will be an intelligent and energetic management, an economical system of working, and a scale of rates and fares suitable to the condition of the people and the requirements of the country.

I have the honour to be,

My Lord Marquis,

Your lordship's very obedient humble servant,

JULAND DANVERS.

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