

ADMINISTRATION REPORT  
ON THE  
RAILWAYS IN INDIA

FOR THE  
CALENDAR YEAR 1903.

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

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By DARLING & SON, LTD., 34-40, BACON STREET, E.

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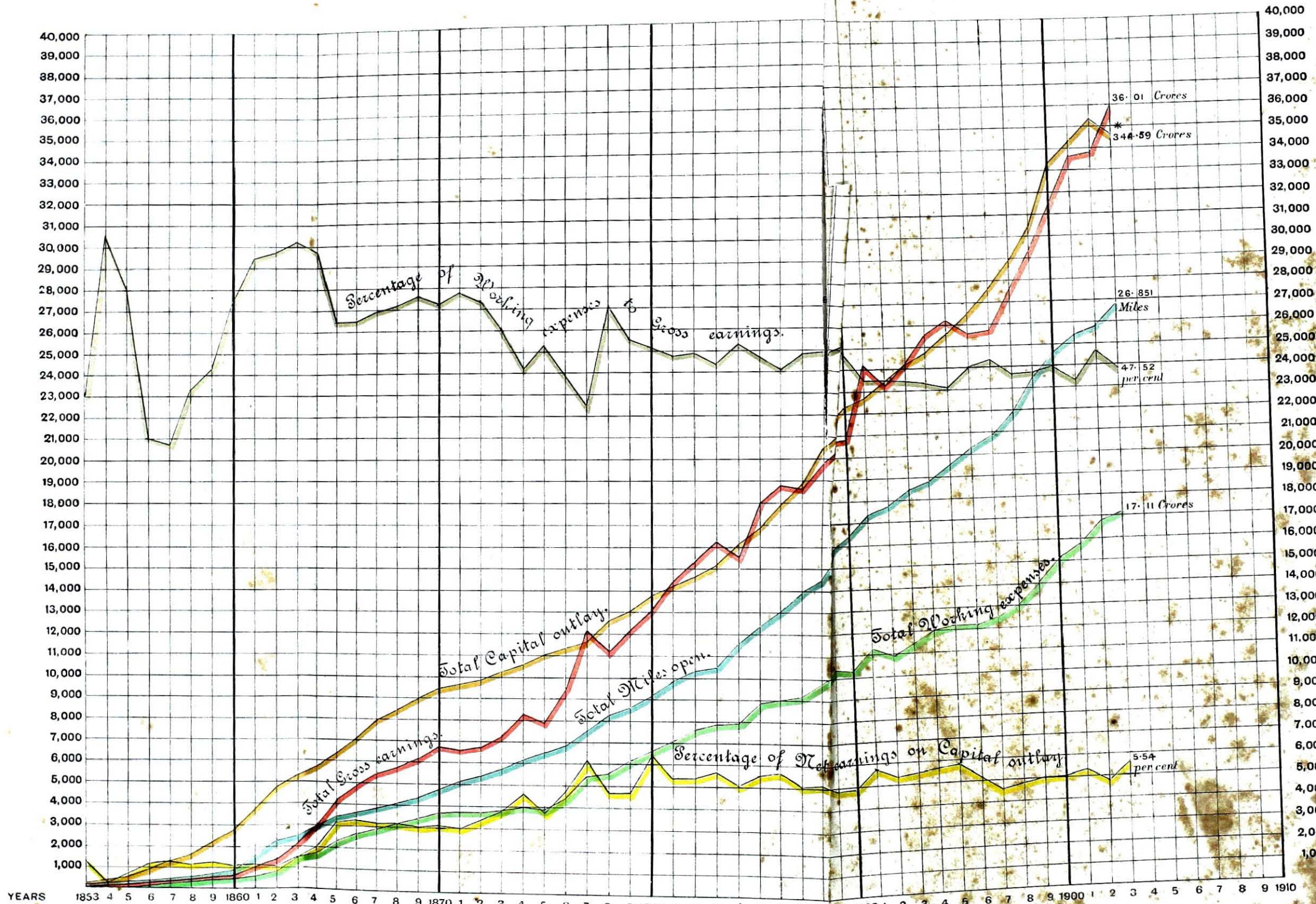
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# INDIAN RAILWAYS

Diagram showing for each year the total up to 31st December 1903 for Capital outlay, Gross earnings, Working expenses, and length in Miles open, also percentage of Net earnings on Capital outlay and percentage of Working expenses to Gross earnings.

The figures on this scale represent lakhs for the Capital outlay, tens of thousands for Gross earnings and Working expenses and Miles for length open. In the case of percentage of Net earnings on Capital outlay, and percentage of Working expenses to Gross earnings, each square represents one and two per cent. respectively.



\* The decrease is due to revision of the outlay hitherto adopted for lines purchased by the State from Guaranteed Railway Companies.



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# ADMINISTRATION REPORT

## ON THE

# RAILWAYS IN INDIA

FOR  
THE CALENDAR YEAR 1903.

### General.

Since the issue of the last report its appendices have been revised with the result that their number has fallen from 50 to 41, and the size of this report, as compared with the last, has been reduced by 107 pages. It is necessary to point out that this has been effected, not by the omission of any statistics, but, by re-arranging and incorporating into one appendix as much information as is possible upon one and the same subject, in order to facilitate reference and comparisons. Under the heading of each appendix will be found the number or numbers of the corresponding appendix or appendices in the last year's report.

### Mileage.

2. At the close of the calendar year 1903 there were 26,955·75 miles of railway open for traffic, 25,611·02 miles in India and 1,344·73 miles in Burma. This mileage—which includes tramways working outside Municipal limits which are treated as Light railways in this report—was owned as follows :

	5' 6" gauge. Miles.	8' 3 3/4" gauge. Miles.	2' 6" gauge. Miles.	2' 0" gauge. Miles.	TOTAL. Miles.
By the State . . . . .	11,284·82	7,933·23	299·95	36·43	19,554·50
By Companies guaranteed under—					
(a) the old contracts . . . . .	1,404·26	...	...	...	1,404·26
(b) modern contracts . . . . .	32·04	59·37	...	...	91·41
By District Boards . . . . .	...	99·46	...	...	99·46
By Branch Line Companies receiving rebates from traffic interchanged with main lines . . . . .	659·57	175·80	...	...	835·37
By Companies—					
(a) subsidized by the Government of India . . . . .	163·36	53·92	...	...	216·28
(b) subsidized by Local Governments . . . . .	...	77·50	7·76	51·00	136·26
(c) subsidized by District Boards . . . . .	...	36·40	58·85	48·44	143·69
(d) receiving land only from the Government of India . . . . .	23·23	952·40	120·53	...	1,095·16
By unassisted Companies . . . . .	...	11·00	31·12	...	42·12
By Native States . . . . .	911·56	1,947·98	277·95	126·14	3,263·63
By Foreign States . . . . .	...	73·61	...	...	73·61
<b>TOTAL</b> . . . . .	<b>14,476·91</b>	<b>11,420·67</b>	<b>796·16</b>	<b>262·01</b>	<b>26,955·75</b>

Total railway mileage open for traffic.  
Proprietary distribution of the open mileage of railways—See Appendix 1.

## Mileage.

Additions to the open mileage of railways—See Appendix 2.

3. The total length open on the 30th April 1904 was 27,140·24 miles, of which 1,029·15 miles were added during the year 1903, and 184·49 miles in the four months following. The principal additions were :

	Miles.	Gauge.
<b>STATE—</b>		
Bengal-Nagpur railway— Nainpur to Seoni . . . . .	47·26	2' 6"
Indian Midland railway— Ait to Kunch . . . . .	8·59	5' 6"
Assam-Bengal railway— Dumchura to Lunding . . . . .	96·70	3' 3½"
Tinnevely-Quilon (Travancore) railway (British section)— Kallidakkurichi to Shencotta . . . . .	90·45	3' 3½"
Oudh and Rohilkhand State railway— Fyzabad to Sultanpur . . . . .	36·37	5' 6"
Siwait to Phaphnau . . . . .	8·63	5' 6"
Balamsau to Madhoganj . . . . .	14·50	5' 6"
<b>COMPANIES, GUARANTEED UNDER THE OLD CONTRACTS—</b>		
Bombay, Baroda and Central India railway— Godhra to Baroda . . . . .	43·67	5' 6"
Madras railway— Tellicherry to Ashikal . . . . .	15·72	5' 6"
<b>DISTRICT BOARD—</b>		
Tanjore District Board railway— Pattukkottai to Arantangi . . . . .	28·35	3' 3½"
<b>BRANCH LINE COMPANY RECEIVING REBATE FROM TRAFFIC INTERCHANGED WITH MAIN LINES—</b>		
Noakhali (Bengal) railway— Laknam to Sahab Ghatta . . . . .	34·90	3' 3½"
<b>SUBSIDIED BY THE DISTRICT BOARD—</b>		
Bukhtiarpore-Bihar Light railway— Bukhtiarpore to Bihar . . . . .	13·50	2' 6"
<b>RECEIVING LAND ONLY FROM THE GOVERNMENT OF INDIA—</b>		
Bengal and North-Western railway— Kopaganj to Dohrihat . . . . .	21·70	3' 3½"
Anaribar to Jaunpur City . . . . .	36·14	3' 3½"
Kalka-Simla railway— Kalka to Simla . . . . .	59·44	2' 6"
<b>NATIVE STATES—</b>		
Gaekwar's Vijapur-Kalol-Kadi railway— Kalol to Kadi . . . . .	11·93	3' 3½"
Gaekwar's Dabhoi railway— Padra to Mobha . . . . .	9·20	2' "
Gwalior Light railway— Gwalior to Jaura . . . . .	31·34	2' 0"

Additions to the sanctioned mileage of railways—See Appendix 4.

4. During the year 1903 sanction was accorded to the construction of 1,267·20 miles of railway detailed below :

	5' 6" gauge. Miles.	3' 3½" gauge. Miles.	2' 6" gauge. Miles.	TOTAL Miles.
<b>OWNED BY THE STATE—</b>				
Bengal-Nagpur railway— Jamadhoba to Balliary . . . . .	5·50	...	...	
Eastern Bengal State railway— Murshidabad to Lalgola . . . . .	22·50	...	...	
Kaunia to Bonarpara . . . . .	...	44·25	...	
East Indian railway— Chandore branch . . . . .	4·16	...	...	
Ondal to Sainthia . . . . .	43·62	...	...	
Nilgiri railway— Coonoor-Ootacamund . . . . .	...	11·50	...	
Salem-Attur railway— Salem to Attur* . . . . .	36·06	...	...	
North Western State railway— Sargoda to Sherkot Road . . . . .	103·00	...	...	
Hyderabad to Badin . . . . .	62·00	...	...	
Jullundur-Kapurthala-Sultanpur railway— (British section)— Jullundur to the British Frontier* . . . . .	...	...	6·80†	
Oudh and Rohilkhand State railway— Phaphnau to Zafarabad . . . . .	57·50	...	...	
Masrui to Hapur . . . . .	19·50	...	...	
Tirhoot railway— Mansi to Baptisahi . . . . .	...	60·37	...	
Sihura to Murliganj . . . . .	...	16·61	...	
Bairagnia to Bikanthori . . . . .	...	70·55	...	
Bettiah to Bagaha . . . . .	...	49·35	...	
Burma railways— Fegu to Martaban‡ . . . . .	...	121·27	...	
CARRIED OVER	353·84	334·90	8·80	745·54

\* Commencement of work not yet authorized.

† Question of gauge not yet settled.

‡ With a steam ferry to connect with the port of Moulemein.

## Mileage.

	5' 6" gauge. Miles.	3' 3½" gauge. Miles.	2' 6" gauge. Miles.	TOTAL. Miles.
<b>BROUGHT FORWARD</b>	<b>858·84</b>	<b>384·30</b>	<b>6·80</b>	<b>745·54</b>
<b>OWNED BY BRANCH LINE COMPANY RECEIVING REBATE FROM TRAFFIC INTERCHANGED WITH MAIN LINE—</b>				
Southern Punjab railway— Ludhiana to MacLeodganj . . . . .	156·40	...	...	156·40
<b>OWNED BY COMPANY SUBSIDIZED BY THE GOVERNMENT OF INDIA—</b>				
Rohilkund and Kumaon railway— Bareilly to Sonon . . . . . Moradabad to Ramnagar . . . . . Lalkua to Kashipur . . . . .	... ... ...	56·00 47·00 45·00	... ... ...	... ... 148·00
<b>OWNED BY COMPANY SUBSIDIZED BY THE DISTRICT BOARD—</b>				
Baraset-Basirhat Light railway— Baraset to Basirhat . . . . .	... ...	... ...	26·00	26·00
<b>OWNED BY COMPANY RECEIVING LAND ONLY FROM THE GOVERNMENT OF INDIA—</b>				
Bengal and North-Western railway— Kopaganj to Dohrihat . . . . . Uska Bazar to Tulsipur . . . . . Geisabri to Jarwa . . . . . Gorakhpur to Bagaha . . . . .	... ... ... ...	21·70 53·54 13·56 60·94	... ... ... ...	... ... ... 148·74
<b>OWNED BY UNASSISTED COMPANY—</b>				
Tarakeshwar-Magra railway— Magra to Tribeni . . . . .	... ...	... ...	2·15	2·15
<b>OWNED BY NATIVE STATES—</b>				
Gaekwar's Dabhoi railway— Mubha to Kanjat . . . . .	... ...	... ...	6·40	... ...
Jullundur-Kapurthala-Sultanpur railway (Native state section)— Sultanpur to the British Frontier* . . . . .	... ...	... ...	22·02†	... ...
Cutch railway— Anjar to Tuna . . . . .	... ...	... ...	11·86	... ...
	... ...	... ...	40·37	40·37
<b>TOTAL</b>	<b>510·24</b>	<b>631·64</b>	<b>75·32</b>	<b>1,267·20</b>

Additions to the sanctioned mileage of railways—See Appendix 4.

An additional 216·38 miles were sanctioned between the 1st January and the 30th April 1904, the details of which are:

	5' 6" gauge. Miles.	3' 3½" gauge. Miles.	2' 6" gauge. Miles.	TOTAL. Miles.
<b>OWNED BY THE STATE—</b>				
East Indian railway— Khurja to Hapur . . . . .	38·87	...	...	...
Great Indian Peninsula railway— Warora to Ballarpur . . . . .	37·00	...	...	...
Burma railways— Hensada to Kyangin . . . . .	...	65·66	...	...
	76·77	65·66	...	142·43
<b>OWNED BY NATIVE STATES—</b>				
Jodhpur-Bikaner railway, Jodhpur section— Merta Road to Merta City . . . . .	...	8·95	...	...
Gwalior Light railway— Sabulgarh to Sheopur . . . . .	...	...	65·00	...
	...	8·95	65·00	73·95
<b>TOTAL</b>	<b>76·77</b>	<b>74·61</b>	<b>65·00</b>	<b>216·38</b>

5. The following is an abstract of the mileage of railways under construction or sanctioned for commencement on the 30th April 1904:

	5' 6" gauge. Miles.	3' 3½" gauge. Miles.	2' 6" gauge. Miles.	2' 0" gauge. Miles.	TOTAL. Miles.
Owned by the State . . . . .	1,005·46	852·98	181·30	...	2,039·94
Owned by District Board . . . . .	...	5·53	...	...	5·53
Owned by Branch Line Company receiving rebate from traffic interchanged with main line . . . . .	156·40	...	...	...	156·40
Owned by Company subsidized by the Government of India . . . . .	...	148·00	...	...	148·00
Owned by Companies subsidized by District Boards . . . . .	...	...	119·00	21·00	140·00
Owned by Companies receiving land only from the Government of India . . . . .	...	127·04	201·87	...	328·91
Owned by Native States . . . . .	...	139·42	72·47	91·32	308·21
<b>TOTAL</b>	<b>1,161·86</b>	<b>1,272·97</b>	<b>574·64</b>	<b>112·32</b>	<b>3,122·19</b>

Mileage remaining under construction or sanctioned for commencement—See Appendix 4.

\* Commencement of work not yet authorized.  
† Question of gauge not yet settled.



Capital.  
Capital outlay—  
See Appendix B.

## Capital.

6. The total Capital outlay on railways at the close of the calendar year 1903 amounted to Rs. 3,44,59,38,000 as under :

	Mileage.			Capital outlay at close of 1903. (In thousands of rupees).		
	Open.	Under construction.	TOTAL.	Open lines.	Lines under construction.	TOTAL.
	Miles.	Miles.	Miles.			
<b>PART I.</b>						
<b>CAPITAL EXPENDITURE ON RAILWAYS, THE TRANSACTIONS OF WHICH PASS THROUGH THE GOVERNMENT ACCOUNTS.</b>						
(i).—State lines worked by Companies . . . . .	14,141.32	989.26	15,080.58	1,88,36.79	4,84.04	1,93,20.83
(ii).—State lines worked by the State . . . . .	5,370.83	436.24	5,807.07	1,62,81.03	54.29	1,68,35.32
(iii).—Companies' lines guaranteed under the old contracts . . . . .	1,404.26	8.90	1,408.16	25,19.76	81.66	26,01.42
(iv).—Companies' lines guaranteed under modern contracts . . . . .	91.41	...	91.41	57.86	...	57.86
(v).—District Boards' lines . . . . .	99.46	8.90	108.36	44.46	1.24	45.70
(vi).—Branch Line Companies, receiving rebates from traffic interchanged with main lines . . . . .	375.14	...	375.14	3,02.07	...	3,02.07
<b>TOTAL OPEN LINES AND LINES PARTLY OPEN.</b>	<b>21,482.42</b>	<b>1,383.30</b>	<b>22,865.72</b>	<b>2,99,91.97</b>	<b>6,21.23</b>	<b>3,06,13.20</b>
(vii).—Lines wholly under construction by State agency . . . . .	...	300.10	300.10	...	1,02.68	1,02.68
(viii).—Lines wholly under construction by Companies . . . . .	...	256.69	256.69	...	1,29.49	1,29.49
<b>TOTAL (vii) AND (viii)</b>	...	<b>556.79</b>	<b>556.79</b>	...	<b>2,32.17</b>	<b>2,32.17</b>
(ix).—Unclassified expenditure including collieries, &c. . . . .	...	...	...	...	...	95.71
<b>TOTAL PART I</b>	<b>21,482.42</b>	<b>1,940.09</b>	<b>23,422.51</b>	<b>2,99,91.97</b>	<b>8,53.40</b>	<b>3,09,41.08</b>
<b>PART II.</b>						
<b>CAPITAL EXPENDITURE ON RAILWAYS, THE TRANSACTIONS OF WHICH DO NOT PASS THROUGH THE GOVERNMENT ACCOUNTS.</b>						
(i).—Branch Line Companies, receiving rebates from traffic interchanged with main lines . . . . .	46.23	156.40	616.63	2,49.33	...	2,49.33
(ii).—Assisted Companies' lines—						
(a) Subsidized by the Government of India . . . . .	162.36	...	162.36	1,55.50	...	1,55.50
(b) Subsidized by Local Governments . . . . .	128.60	...	128.60	1,18.46	...	1,18.46
(c) Subsidized by District Boards . . . . .	143.69	8.50	152.19	65.57	20	65.77
(d) Receiving land only from Government . . . . .	1,095.16	123.94	1,219.10	8,77.04	18.33	8,95.37
<b>TOTAL (ii)</b>	<b>1,529.71</b>	<b>132.44</b>	<b>1,662.15</b>	<b>12,16.57</b>	<b>18.53</b>	<b>12,35.10</b>
(iii).—Unassisted Companies' lines . . . . .	42.13	2.15	44.27	26.46	32	26.78
(iv).—Native State lines—						
(a) Worked by Native States . . . . .	1,317.40	...	1,317.40	4,42.63	3.31	4,45.93
(b) Worked by Companies . . . . .	11,710.57	64.35	1,774.92	12,35.93	13.27	12,49.20
(c) Worked by State Railway agency . . . . .	235.23	...	235.23	1,82.92	...	1,82.92
<b>TOTAL (iv)</b>	<b>3,263.20</b>	<b>64.35</b>	<b>3,327.55</b>	<b>18,11.47</b>	<b>16.58</b>	<b>18,28.05</b>
(v).—Foreign State lines . . . . .	78.61	...	78.61	1,50.69	...	1,50.69
<b>TOTAL OPEN LINES AND LINES PARTLY OPEN</b>	<b>5,368.37</b>	<b>353.24</b>	<b>5,724.21</b>	<b>34,54.52</b>	<b>35.43</b>	<b>34,89.95</b>
(vi).—Lines wholly under construction by private Companies . . . . .	...	39.50	39.50	...	8.24	8.24
(vii).—Lines wholly under construction by Native States . . . . .	...	116.61	116.61	...	12.03	12.03
<b>TOTAL (vi) AND (vii)</b>	...	<b>156.31</b>	<b>156.31</b>	...	<b>20.27</b>	<b>20.27</b>
(viii).—Unclassified expenditure . . . . .	...	...	...	...	...	58.08
<b>TOTAL PART II</b>	<b>5,368.37</b>	<b>511.65</b>	<b>5,880.52</b>	<b>34,54.52</b>	<b>55.70</b>	<b>35,18.30</b>
<b>GRAND TOTAL</b>	<b>26,851.29</b>	<b>2,451.74</b>	<b>29,303.03</b>	<b>3,34,46.49</b>	<b>9,09.10</b>	<b>3,44,59.38</b>
<b>ABSTRACT.</b>						
Outlay on open lines and lines partly open—(i to vi, Part I) and (i to v, Part II)	26,851.29	1,733.64	28,589.33	3,34,46.49	6,56.66	3,41,03.16
Outlay on lines wholly under construction—(vii and viii, Part I) and (vi and vii, Part II)	...	718.10	718.10	...	2,52.44	2,52.44
Unclassified expenditure (ix, Part I, and viii, Part II)	...	...	...	...	...	1,03.79

\* Includes the Rohilkund and Kumaon railway (Company's section) 53.92 miles, which has for convenience been classed as a State line for the purposes of this statement, and 0.43 mile of the Native State section of the Tinnevely-Quilon (Travancore) railway, but excludes the Damchura-Lumding section of the Assam-Bengal railway, 96.70 miles.

† Excludes Rs. 16,43,01,000 on account of premia.

‡ Excludes Rs. 3,90,73,000 on account of premia.

§ Includes Rs. 4.01 incurred direct by Companies on the following lines:—

Brahmaputra-Sultanpur . . . . .	1.83
Hardwar-Dehra . . . . .	2.18
	<u>4.01</u>

|| Includes Rs. 68.05 incurred direct by Companies on the following lines:—

Ahmedabad-Dholka . . . . .	1.42
Ahmedabad-Parantij . . . . .	1.47
Mymensingh-Jamalpur-Jagannathganj . . . . .	1.28
South Behar . . . . .	52.18
Tapti Valley . . . . .	11.70
	<u>68.05</u>

\*\* Excludes the Rohilkund and Kumaon railway (Company's section), 53.92 miles, which has for convenience been classed as a State line for the purposes of this statement.

†† Excludes the Thaton-Duyinsak railway, 7.76 miles.

‡‡ Excludes 0.43 mile of the Native State section of the Tinnevely-Quilon (Travancore) railway, included with "State lines worked by companies."

§§ State outlay on the Patri branch of the Bombay, Baroda and Central India railway.

¶ Excludes the Thaton-Duyinsak railway.

## Capital.

The outlay included in Part I of the foregoing statement under "State lines worked by companies" on account of the railways purchased by the State from the East Indian, the South Indian and the Great Indian Peninsula Railway Companies, and under "State lines worked by the State" on account of the railways purchased from the Eastern Bengal, the Sind, Punjab and Delhi and the Oudh and Rohilkhand Guaranteed Railway Companies, represents the actual Capital expenditure incurred by the Companies up to the date of purchase and subsequently by the State.

7. The average outlay, per mile open on the different classes of railways was as under: Average outlay per mile open—  
See Appendix 8.

	Average outlay per mile open. (In thousands of rupees.)			
	5' 6" gauge.	3' 3½" gauge.	2' 6" gauge.	2' 0" gauge.
Owned by the State . . . . .	1,70	86	50	29
Owned by Companies guaranteed under—				
(a) the old contracts . . . . .	1,73	...	...	...
(b) modern contracts . . . . .	89	49	...	...
Owned by District Boards . . . . .	...	45	...	...
Owned by Branch Line Companies receiving rebates from traffic interchanged with main lines.	73	41	...	...
Owned by Companies—				
(a) Subsidized by the Government of India . . . . .	96	...	...	...
(b) Subsidized by Local Governments . . . . .	...	1,04	...	67
(c) Subsidized by District Boards . . . . .	...	69	34	39
(d) Receiving land only from the Government of India . . . . .	81	70	1,32	—
Owned by Unassisted Companies . . . . .	...	11,51	31	...
Owned by Native States . . . . .	90	44	34	23
Owned by Foreign States . . . . .	...	2,02	...	...
<b>AVERAGE COST OF EACH GAUGE . . . . .</b>	<b>1,60</b>	<b>77</b>	<b>87</b>	<b>35</b>

8. The Capital outlay on each railway up to the 31st December 1903 distributed over main heads of expenditure is recorded in Appendix 8. Distribution of Capital outlay over main heads of expenditure—  
See Appendix 8.

9. The total Sterling Capital raised by companies and paid over to the Secretary of State up to the close of the calendar year 1903, and the amount subsequently withdrawn for expenditure by companies during and up to the close of the calendar year 1903 were as follows: Sterling Capital—See Appendix 5.

	Amount raised up to 31st December 1903.	Amount withdrawn in 1903.	Amount withdrawn up to 31st December 1903.
	£	£	£
Guaranteed railways . . . . .	22,864,713	240,653	23,195,074
State lines leased to companies . . . . .	33,558,006	1,786,237	39,559,272
<b>TOTAL . . . . .</b>	<b>56,422,719</b>	<b>2,026,890</b>	<b>62,754,346</b>

\* The high cost is due to the large outlay on the Dibru-Sadiya railway.

† The high cost is due to the large outlay on the Kalka-Simla railway.

‡ Cost of the Lodo and Tikak-Margherita Colliery railway.

§ The high cost is due to the large outlay on the West of India Portuguese railway.

## Capital.

Budget allotments for Capital expenditure—See Appendix 6,

10. The total budget allotment for the official year 1902-03 on railways for which the State finds the funds either directly or by guarantee, was originally Rs. 11,00,00,000, but was subsequently reduced to Rs. 10,34,58,000. For the official year 1903-04 it was reduced from Rs. 11,00,00,000, to Rs. 9,82,07,000 owing to short outlay in England against the amounts placed at the disposal of the Secretary of State and some of the Railway Companies' Boards for the purchase of rolling-stock, stores, etc.

For the official year 1904-05, provision has been made as follows :

	Rs.
(a) For open lines, including rolling-stock . . . . .	5,48,67,000*
(b) For lines already under construction—	
(i) Begun prior to 1903-04 . . . . .	3,51,84,000
(ii) Begun during 1903-04 . . . . .	1,48,11,000
(c) For lines to be begun in 1904-05 . . . . .	* 91,38,000
(d) For purchase of lines . . . . .	60,00,000
<b>TOTAL</b> . . . . .	<b>12,00,00,000</b>

As usual the needs of open lines and lines already under construction have received first consideration, no less a sum than Rupees three crores having been set aside for additional rolling-stock.

Towards the close of the year 1903-04 Government, at the request of the owners, decided to purchase the Sagauli-Raxaul, the Brahmaputra-Sultanpur, the Cooch Behar, and the Ranaghat-Krishnagar railways at an aggregate cost of about 60 lakhs of rupees. The offer of sale has, in the case of the Cooch Behar railway, since been withdrawn.

Capital expenditure during the past ten years—See Appendix 7.

11. In Appendix 7 is presented the Capital expenditure during the past ten years on each railway system in India on—

- (a) Rolling-stock.
- (b) Improvement of existing lines.
- (c) New lines in extension of, or now worked by, existing lines.

Summarized, the figures are as follows :

EXPENDITURE in lakhs ON LINES WHICH ARE INCLUDED IN THE "RAILWAY PROGRAMME," THAT IS, FOR WHICH THE STATE FINDS OR GUARANTEES THE FUNDS.							EXPENDITURE in lakhs ON PRIVATE COMPANIES' LINES OR NATIVE STATES' LINES, WHICH FALL OUTSIDE THE "RAILWAY PROGRAMME."					
YEAR.	Rolling-stock.	Improvement of existing lines.	Suspense.	Total improvements 2+3+4.	New lines in extension of, or now worked by, existing lines.	Total Capital expenditure 5+6.	Total Capital expenditure 12+13.	Rolling-stock.	Improvement of existing lines.	Suspense.	Total improvements 9+10+11.	New lines in extension of, or now worked by, existing lines.
1	2	3	4	5	6	7	8	9	10	11	12	13
1894	45	1,83	41	2,69	2,83	5,52	60	...	10	-3	7	53
1895	91	1,10	34	2,35	3,44	5,79	1,66	7	10	22	39	1,27
1896	65	1,42	56	2,63	4,17	6,80	2,38	14	3	30	47	1,01
1897	1,25	1,38	53	3,16	5,56	8,72	3,09	12	11	12	35	2,74
1898	1,20	1,05	-59	1,66	5,45	7,11	3,83	24	17	9	50	2,83
1899	2,25	1,50	-7	3,68	5,72	9,40	3,00	43	10	-8	45	2,56
1900	1,49	1,56	23	3,28	4,15	7,43	1,57	29	18	-13	29	1,29
1901	1,74	1,82	53	4,09	3,73	7,82	1,83	25	29	-2	52	1,31
1902	2,56	2,15	35	5,06	4,83	9,94	1,65	28	20	-6	42	1,23
1903	2,33	1,82	1,31	5,46	4,75	10,21	1,44	30	23	-28	27	1,17

The actual Capital expenditure during the calendar year 1903 on railways for the financing of which the State is responsible amounted to Rs. 10,21,00,000, the gross outlay on all railways in India during the year having been Rs. 11,65,00,000.

\* Includes Rs. 66,38,000, unallotted provision for five railways.



## Rolling-stock.

Rolling-stock.  
Statistical  
results.

12. During the year 1902, 205 engines, 684 passenger carriages, and 5,023 wagons were added to the rolling-stock of railways; in 1903 the figures were 318, 581, and 4,293 respectively. Details of the total stock on each railway system on the 31st December 1903 will be found in Appendix 22. Rolling-stock—  
See Appendices  
8, 22 and 23.

13. The total outlay on rolling-stock amounted at the close of 1903 to Rs. 50,55,54,000 or Rs. 18,828 per mile open as will be seen from Appendix 8. The additions under supply to meet further developments of traffic are shown at the foot of Appendix 23, and amount to 283 engines, 840 passenger carriages and 5,945 wagons.

Statistics of the work done by the rolling-stock of the principal railways are shown in Appendix 23.

14. During the year 1903, 355 engines, and 873 coaching and 803 goods vehicles were fitted with automatic brakes, making the number so fitted at the close of the same year, 2,360 engines, and 9,732 coaching and 2,008 goods vehicles, as against 3,069 engines, and 9,823 coaching and 101,289 goods vehicles not yet fitted. Automatic  
brakes—  
See Appendix 24.

15. During the year 1903, 1,134 vehicles were fitted with gas and electricity, bringing the total number so fitted at the close of the year up to 9,214, as compared with 8,041 not yet fitted. Carriages lighted  
by gas and  
electricity—  
See Appendix 25.

16. During the year under review, 99 stations were fitted with apparatus for interlocking points and signals. The progress in the introduction of automatic instruments for signalling trains between stations continues, 109 stations having been provided with these instruments. Interlocking and  
block working—  
See Appendix 26.

## Statistical results of working.

17. In the following table will be found some of the more important figures connected with the working of the Indian railways treated as one system: Main statistical  
results of work-  
ing—See Appen-  
dices 10, 11, 12,  
15 and 16.

Year.	Mileage open.	In thousands of rupees.				Gross earnings per mile per week.	Percentage of working expenses to gross earnings.	Percentage of net earnings on capital outlay on open lines and lines partly open.	PASSENGERS.				GOODS.				
		Capital outlay.	Gross earnings.	Working expenses.	Net earnings.				Number carried in thousands.	Earnings in thousands of rupees.	Average rate charged per mile.	Average miles carried.	Quantity carried in thousands of tons.	Earnings in thousands of rupees.	Average rate charged per ton per mile.	Average miles carried.	
1894	11,527	1,55,45,04	16,06,63	8,15,62	7,91,00	276	50.76	5.09	73,815	4,46,94	2.56	45.43	10,663	10,56,69	7.35	165.73	
1899	15,900	2,06,04,61	20,49,37	10,37,74	10,11,63	257	50.64	4.93	110,650	6,13,74	2.52	42.27	22,349	13,05,56	6.88	163.77	
1894	18,840	2,37,79,01	25,50,89	11,98,40	13,52,49	262	46.93	5.89	145,727	7,57,58	2.56	40.42	32,644	16,24,82	6.43	146.93	
1899	23,507*	3,08,50,12	29,38,79	13,93,36	15,43,43	246	47.45	5.00	161,720	8,09,39	2.51	38.48	30,748	19,19,82	5.98	155.15	
1900	24,704†	3,29,53,34	31,54,32	15,09,31	16,45,01	250	47.85	4.99	176,306	8,95,07	2.51	40.09	42,806	20,36,52	5.68	154.94	
1901	25,332‡	3,39,16,59	33,60,38	15,72,45	17,67,93	255	46.79	5.27	194,749	10,07,17	2.46	40.42	43,302	21,23,67	5.77	162.75	
1902	25,898‡	3,46,77,34	33,92,09	16,70,49	17,22,20	254	46.24	5.32	196,948	10,27,48	2.51	40.03	45,537	21,23,41	5.68	157.54	
1903	26,651§	3,41,11,23	36,00,82	17,11,09	18,69,73	257	47.53	5.54	210,231	10,98,14	2.51	39.90	47,694	22,41,02	5.64	159.93	

With an addition of 953 miles or 3.68 per cent. to the open mileage, the gross earnings exceeded those of the previous year by Rs. 2,08,13,000 or 6.13 per cent. and as this sum was realized at an extra outlay of only Rs. 40,60,000 or 2.43 per cent., the net earnings were greater by Rs. 1,67,53,000 or 9.73 per cent. This gain was derived from both passenger and goods traffic, principally the latter.

The percentage of working expenses to gross earnings was lower by 1.72 and that of net earnings on Capital outlay was higher by 0.62; the latter result being due partly to the change made in the manner of stating the Capital outlay of the railways purchased from Guaranteed Companies by the State, which has been referred to in paragraph 6, pages 4 and 5.

The statistical results of working each railway system will be found in Appendix 12.

\* Excludes the Chorra-Companyganj and Thaton-Duytzaik railways.

† Excludes the Thaton-Duytzaik and Powayan Light railways.

‡ Excludes the Thaton-Duytzaik and Parlakimedi Light railways.

§ Excludes the Thaton-Duytzaik Light railway and the Damohara-Lumding section of the Assam-Bengal railway, 101.46 miles.

¶ The decrease is due to a revised method having been adopted for showing the capital outlay on railways purchased by the State from Guaranteed Railway Companies.

### Statistical results.

Gross earnings of all railways—See Appendices 10, 11, 12, 15 and 16.

18. The gross earnings under main heads during the last five years were :

YEAR.	Mileage open.	In thousands of rupees.					Total.
		Coaching.	Goods.	Electric telegraph.	Sandries.	Steam-boat.	
1899	23,507	9,22,58	19,19,82	8,70	68,51	17,17	29,36,78
1900	24,704	10,26,44	20,36,52	7,98	66,25	17,18	31,54,32
1901	25,332	11,41,88	21,23,67	7,49	71,81	15,53	33,60,38
1902	25,898	11,75,08	21,23,41	7,32	71,06	15,82	33,92,69
1903	26,851	12,54,40	22,41,32	7,34	78,92	17,74	36,00,82

Of the total increase of Rs. 2,08,13,000 in the gross earnings as compared with the previous year, Rs. 73,73,000, or 35.42 per cent. were obtained by the North Western State, Rs. 85,14,000 or 16.88 per cent. by the Great Indian Peninsula railway system, and Rs. 22,28,000 or 10.70 per cent. by the East Indian railway. The earnings of the South Indian, the Bengal and North-Western, the Bengal-Nagpur and the Bombay, Baroda and Central India also improved by Rs. 18,75,000, Rs. 17,65,000, Rs. 13,30,000 and Rs. 12,56,000 respectively, while those of the Rajputana-Malwa railway declined by Rs. 31,30,000.

The gross earnings of each railway system will be found in Appendix 12.

Coaching traffic—See Appendix 15.

19. Details of the coaching traffic of each railway system will be found in Appendix 15, of which the following is a brief summary :

YEAR.	Number carried in thousands.					Earnings in thousands of rupees.						Average rate charged per mile. Pies.					Average miles carried.						
	ORDINARY PASSENGERS.				Season and vendors' tickets.	TOTAL.	ORDINARY PASSENGERS.				Season and vendors' tickets.	Parcels.	Including items not detailed.	1st.	2nd.	Inter.	3rd.	Season and vendors' tickets.	1st.	2nd.	Inter.	3rd.	Season and vendors' tickets.
	1st.	2nd.	Inter.	3rd.			1st.	2nd.	Inter.	3rd.													
1899	520	2,353	6,283	140,321	13,289	161,720	31,52	46,97	52,08	6,70,81	8,01	54,26	9,12,58	12'58"	5'32"	3'07"	2'30"	...	71'78"	43'90"	60'56"	37'58"	...
1900	521	2,235	5,763	163,954	19,646	176,308	31,83	47,08	58,03	7,51,08	8,47	63,04	10,26,44	12'59"	5'40"	3'11"	2'31"	...	74'85"	44'04"	59'53"	39'16"	...
1901	532	2,405	6,670	176,416	14,736	194,749	32,78	52,48	64,30	8,46,25	9,22	63,60	11,41,88	12'74"	5'48"	3'08"	2'31"	1'41	72'32	76'27	59'24	41'27	8'63
1902	563	2,530	6,913	171,716	15,929	196,645	33,57	56,59	67,00	8,54,97	9,76	66,31	11,75,08	12'96"	5'21"	3'11"	2'32	1'41	102'28	82'39	61'30	41'08	8'85
1903	594	2,580	7,214	184,292	16,561	210,231	41,60	58,12	71,08	9,16,31	10,48	71,53	12,54,40	12'21"	5'54"	3'09"	2'33	1'48	101'71	78'13	61'64	40'24	8'74
Average.	547	2,430	6,327	164,149	14,467	187,931	35,25	52,24	63,36	8,08,40	9,20	64,15	11,04,06	12'80"	5'41"	3'09"	2'32	1'43	88'65	64'94	59'47	40'01	8'74

A marked development of passenger traffic under all classes, principally under the intermediate and third classes, is reported, with a few unimportant exceptions, by railways generally. In numbers carried the South Indian railway leads with an increase (in thousands) of 2,491 and is followed by the Burma, North Western State, Bengal and North-Western, Great Indian Peninsula and East Indian railways, whose figures of increase (in thousands) are 2,055, 1,956, 1,951, 1,872 and 1,027, respectively.

In earnings, the North Western State railway heads the list with an increase of 13 lakhs of rupees; the other more important increases were recorded by the Burma, South Indian, East Indian and Bengal and North-Western railways, and amounted to 10'35, 9'02, 7'70 and 6'35 lakhs of rupees, respectively.

Compared with the previous year, the passenger traffic improved as under—

	Number.	Earnings. Rs.
First class	31,000	2,99,000
Second class	50,000	1,54,000
Intermediate class	4,01,000	4,08,000
Third class	12,576,000	61,34,000
Season tickets	525,000	71,000
<b>TOTAL</b>	<b>13,583,000</b>	<b>70,66,000</b>

\* Including season and vendors' tickets.

## Statistical results.

These very satisfactory results are due principally to the return of the country to prosperous times and in a less degree, to the year having been propitious to natives for marriages and pilgrimages, to the great "Kumbh" festival, which was held at Hardwar, on the Oudh and Rohilkhand State railway, after an interval of 12 years, and to the opening of new lines of railway.

20. Details of the goods traffic of each railway system will be found in Appendix 16, of which the following is a brief summary :

Goods traffic—  
See  
Appendix 16.

Year.	Quantity carried in thousands of tons.					Earnings in thousands of rupees.							
	General merchandise.	Military stores.	Coal and coke for the public and foreign railways.	Revenue stores, including coal and material for construction.	Live-stock.	Total.	General merchandise.	Military stores.	Coal and coke for the public and foreign railways.	Revenue stores, including coal and material for construction.	Live-stock.	Rents, Miscellaneous.	Total.
1900 . . .	23,902	59	6,231	9,459	107	39,758	16,10,55	13,11	1,80,41	94,11	13,99	7,65	19,19,82
1901 . . .	25,548	53	7,309	9,820	161	43,891	16,90,25	13,78	2,11,71	83,32	16,70	8,66	20,36,52
1902 . . .	25,458	63	6,249	9,523	94	42,397	17,53,14	14,97	2,35,01	96,41	15,44	8,70	21,23,67
1903 . . .	25,040	100	6,934	11,467	76	43,687	17,40,72	21,67	2,28,75	1,14,83	15,13	8,85	21,23,41*
1903 . . .	26,302	114	6,565	12,721	62	47,664	18,63,45	23,07	2,29,98	1,13,90	18,07	9,24	22,41,92*
Average	25,300	79	7,376	10,003	104	43,853	17,29,64	17,23	2,16,76	1,02,53	16,27	8,84	20,09,06

The total weight lifted and the earnings therefrom were greater by 2,147,000 tons and Rs. 1,18,51,000 respectively, and as in the case of the passenger traffic, most of the railways record progress in goods traffic.

The principal increases and decreases in earnings were—

RAILWAYS.	Earnings in thousands of rupees.			
	1903.	1902.	Increase.	Decrease.
North Western State . . . . .	3,46,85	2,91,45	55,40	...
Great Indian Peninsula . . . . .	4,17,35	3,86,46	30,89	...
Bengal-Nagpur . . . . .	89,57	77,27	12,30	...
Bengal and North-Western . . . . .	58,21	47,09	11,12	...
East India . . . . .	4,84,51	4,73,75	10,76	...
Bombay, Baroda and Central India . . . . .	1,15,88	1,06,94	8,94	...
South Indian . . . . .	56,18	48,84	7,34	...
Madras . . . . .	98,65	94,73	3,92	...
Oudh and Rohilkhand State . . . . .	67,45	64,75	2,70	...
Rajputana-Malwa . . . . .	1,51,72	1,86,32	...	34,60
Eastern Bengal State . . . . .	1,05,65	1,08,53	...	2,88

21. The classified items which contributed most towards the earnings of the year, and their figures in 1902 are given below :

Principal commodities—See  
Appendix 17.

	1903.		1902.	
	Quantity.	Earnings.	Quantity.	Earnings.
	Tons.	Rs.	Tons.	Rs.
Grain and pulse . . . . .	7,756,318	5,27,71,853	7,539,816	4,88,50,998
Cotton, raw and manufactured . . . . .	1,594,925	2,49,20,871	1,456,869	2,25,27,624
Coal . . . . .	6,568,009	2,30,47,386	8,026,590	2,26,76,009
Oil seeds . . . . .	2,760,849	1,96,12,591	2,356,418	1,65,28,043
Sugar . . . . .	1,429,865	1,03,55,795	1,378,871	1,07,26,791
Salt . . . . .	1,809,292	99,37,943	1,616,168	95,15,866

\* Excludes Rs. 5,74,000 of the Cawnpore-Burhwal metre gauge link cross traffic earnings included in the foregoing details and taken to credit under "Sundry" earnings of the Oudh and Rohilkhand State railway.



**Statistical results.**

Principal commodities—continued.

The total weight of these six staples amounts to 23,714,258 tons or 68·00 per cent. of the traffic carried for the public, and their earnings were Rs. 14,11,45,839 or 67·01 per cent. of the gross earnings therefrom. These figures in 1902 were 22,373,727 tons (67·55 per cent.) and Rs. 13,08,25,331 (65·77 per cent.). Coal which was second on the list last year has been displaced by cotton.

The principal fluctuations were :

	INCREASE.		DECREASE.	
	Quantity.	Earnings.	Quantity.	Earnings.
	Tons.	Rs.	Tons.	Rs.
Wheat . . . . .	608,925	73,28,183	...	...
Oil seeds . . . . .	404,431	30,84,548	...	...
Cotton, raw and manufactured . . . . .	139,056	23,93,247	...	...
Other grains . . . . .	...	...	255,139	20,92,961
Jowar and bajra . . . . .	...	...	257,239	13,54,862
Jute, raw . . . . .	...	...	93,550	7,74,959
Rice in the husk . . . . .	...	...	133,205	7,00,047
Metals . . . . .	22,614	3,91,160	...	...
Railway plant and rolling-stock . . . . .	262,208	3,86,837	...	...
Fodder . . . . .	20,482	3,71,692	...	...
Coal . . . . .	536,419	3,71,377	...	...
Stone and lime . . . . .	153,012	3,23,928	...	...

Good crops of wheat, oil seeds and cotton raw, followed by a demand for export, increased the earnings under these three heads by about a crore and a quarter of rupees. Traffic in the lower food stuffs has resumed normal proportions now that traces of the late famine have disappeared. The falling off in jute was due to an unusually brisk movement of the article in the first half of 1902, owing to merchants having held back stocks in the earlier half of that season. The Burma railways account for nearly all the loss under "Rice in the husk" on account of a short crop.

*Coal.*—During the year 1903 the total output from the collieries in India and Burma amounted, as shown in Appendix 28, to 7,480,589 tons against 7,424,480 tons in 1902. The increase of 56,109 tons was considerably below that of the year 1902 over 1901 owing to the smaller output from the collieries in the Central Provinces, Nizam's territory, Punjab, Kashmir and Burma. The exports of Indian coal to Indian ports rose from 974,602 tons to 1,235,318 tons or by 260,716 tons, while those to ports outside India including Burma fell from 728,316 tons to 723,873 tons or by 4,443 tons. The imports of coal from the United Kingdom fell from 198,574 tons to 133,711 tons or by 64,863 tons, while those from other countries rose from 20,773 tons to 30,429 tons or by 9,656 tons.

The total quantity of Indian coal consumed by railways during the year 1903, increased, as shown in Appendix 27, from 2,091,992 tons to 2,203,889 tons or by 111,897 tons while the amount of foreign coal consumed fell from 21,469 tons to 17,696 tons or by 3,773 tons.

The improvement in the traffic in coal carried by railways was due principally to the increase of 270,605 tons and Rs. 6,85,572 recorded by the Bengal-Nagpur railway, consequent upon the opening of the Midnapur-Jherriah extension. On the East Indian railway, the quantity carried increased by 325,836 tons, but the earnings were less by Rs. 19,269. This result is ascribed to the lowering of rates, which took effect from the 17th August 1902. The earnings of the Nizam's railway suffered by the collapse of certain pits at the Yellandu colliery, while the Madras railway carried less coal to the Kolar Gold-fields in consequence of electric power being utilized from the Cauvery falls.

**Statistical  
results.**

22. The working expenditure on all railways taken collectively is shown in the following table :

Working expenses—See Appendices 10, 11 and 12.

Year.	Working expenses in thousands of rupees.	Proportion per cent. of working expenses to gross earnings.	Working expenses excluding steam-boat, per mile worked in rupees.	Working expenses excluding steam-boat, per train-mile in rupees.
1899	13,98,36	47.45	6,055	1.79
1900	15,09,31	47.85	6,204	1.78
1901	15,72,45	46.79	6,179	1.77
1902	16,70,49	49.24	6,472	1.79
1903	17,11,09	47.52	6,371	1.77

Despite an increase of Rs. 40,60,000 in the working expenses, their proportion to gross earnings fell to 47.52 or by 1.72 per cent., as compared with the previous year. The expenditure under main heads of account is given below :

Year.	IN THOUSANDS OF RUPEES.						
	Maintenance of way, works and stations.	Locomotive expenses.	Carriage and wagon expenses.	Traffic expenses.	General charges.	Steam-boat service.	Special and miscellaneous expenditure.
1899 . .	3,42,50	4,71,44	1,33,98	2,30,63	1,42,38	10,82	61,56
1900 . .	3,61,79	5,26,50	1,39,31	2,49,27	1,47,43	13,04	71,97
1901* . .	3,55,93	5,59,13	1,51,90	2,63,92	1,57,65	10,88	72,37
1902 . .	3,89,67	5,78,85	1,76,38	2,73,70	1,63,70	13,20	74,99
1903* . .	3,88,99	6,11,95	1,52,51	2,92,19	1,62,91	15,21	80,90

The more important fluctuations were—(i) an increase under “Locomotive expenses,” occasioned by heavier renewals of engines, principally on the North Western State, the Bombay, Baroda and Central India, the Burma, the South Indian and the Bengal-Nagpur railways, and also by the additional train-mileage run; (ii) an increase under “Traffic expenses,” due to the opening of new railways and to the larger traffic handled; and (iii) a decrease under “Carriage and wagon expenses,” chiefly on the North Western and Oudh and Rohilkhand State railways, where fewer vehicles than usual were renewed.

The percentage of gross earnings absorbed under the first five heads detailed in the foregoing table and the rates per mile worked, and per train-mile are noted below :

YEAR.	MAINTENANCE OF WAY, WORKS AND STATIONS.			LOCOMOTIVE EXPENSES.			CARRIAGE AND WAGON EXPENSES.			TRAFFIC EXPENSES.			GENERAL CHARGES.		
	Per cent. on gross earnings.	Per mile worked.	Per train-mile.	Per cent. on gross earnings.	Per mile worked.	Per train-mile.	Per cent. on gross earnings.	Per mile worked.	Per train-mile.	Per cent. on gross earnings.	Per mile worked.	Per train-mile.	Per cent. on gross earnings.	Per mile worked.	Per train-mile.
		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
1899 .	11.66	1,499	0.44	16.05	2,064	0.61	4.56	587	0.17	7.85	1,010	0.30	4.85	623	0.18
1900 .	11.47	1,500	0.43	16.69	2,133	0.63	4.42	578	0.17	7.90	1,034	0.30	4.67	611	0.18
1901 .	10.59	1,408	0.40	16.64	2,214	0.63	4.52	601	0.17	7.85	1,044	0.30	4.70	625	0.18
1902 .	11.49	1,522	0.42	17.06	2,261	0.62	5.20	689	0.19	8.07	1,069	0.30	4.83	639	0.18
1903 .	10.80	1,461	0.41	16.99	2,299	0.64	4.24	573	0.16	8.11	1,098	0.30	4.69	635	0.18

In view of the increase in both passenger and goods traffic these results, details of which are to be found in Appendix 12, are very satisfactory.

\* Excludes the Powayan Light railway for which details of expenditure under the several departmental heads are not available.

**Statistical results.**

Fuel consumption—See Appendix 27.

23. The following are the figures of coal and wood consumed by railways during the last five years. The decrease in the use of foreign coal is a satisfactory feature of the statement:

Year.	Foreign coal.	Indian coal.	Wood.
	Tons.	Tons.	Tons.
1899	83,939	1,560,204	347,890
1900	56,589	1,858,061	340,830
1901	13,248	1,956,601	409,150
1902	21,469	2,091,992	402,442
1903	17,696	2,203,889	497,185

Train, vehicle &amp; ton-mileage—See Appendices 18, 20 and 21.

24. The following table shows the train, vehicle and ton-mileage of coaching and goods traffic:

YEAR.	Train-mileage. (OMITTING 000.)				Vehicle-mileage. (OMITTING 000.)			Ton-mileage. (OMITTING 000.)		
	Coaching.	Goods.	Mixed.	Total including miscellaneous train mileage.	Coaching.	Goods.	Total.	Coaching.	Goods.	Total.
1899	17,039	30,612	26,889	77,207	571,119	1,213,611	1,784,730	6,900,273	15,909,787	22,710,060
1900	18,114	34,252	29,827	84,193	612,017	1,323,001	1,935,018	7,326,297	17,231,511	24,557,808
1901	19,701	34,274	31,561	88,265	670,984	1,325,839	1,996,873	8,147,469	17,956,732	26,104,201
1902	21,708	36,019	31,781	92,527	742,965	1,354,473	2,097,488	8,958,198	18,764,575	27,722,769
1903	25,889	36,308	31,488	95,960	781,192	1,385,042	2,166,234	9,887,223	19,677,180	29,564,403

**Coaching.**—With an increase of 6·91 per cent. in the number of passengers carried and of 8·14 per cent. in the ton-mileage, the train-mileage was greater by 19·26 per cent. This disproportion was in a great measure due to the opening of new lines of railway.

**Goods.**—With an increase of 4·71 per cent. in the tonnage lifted and of 4·86 per cent. in the ton-mileage, the train-mileage was practically the same, the increase amounting to 0·80 per cent. only, which points to Railway Administrations paying greater attention to the loads of wagons and of trains.

25. The following table shows the gross earnings per mile worked and per train-mile for the past five years:

Earnings per mile worked and per train-mile—See Appendices 1 and 12.

YEAR.	Per mile worked.			Per train-mile.
	Gross earnings, excluding steam-boat, in rupees.			
	Coaching.	Goods.	Total, including "other earnings" except steam-boat.	Gross earnings, excluding steam-boat, in rupees.
1899	4,088	8,405	12,788	3·78
1900	4,254	8,444	13,007	3·73
1901	4,517	8,404	13,236	3·79
1902	4,589	8,293	13,188	3·65
1903	4,718	8,423	13,461	3·73

The earnings during 1903 both per mile worked and per train-mile show satisfactory increases as compared with the previous year.

Statistical  
results.

26. The Statistical return of net earnings on the Capital outlay on open lines and lines partly open of the different classes of railway for the past five years is given below :

Statistical return  
of net earnings  
on Capital out-  
lay.

		Return per cent. on Capital.				Total
		5' 6" gauge.	3' 3½" gauge.	2' 6" gauge.	2' 0" gauge.	
Owned by the State	1899	4.98	4.87	...	•	4.95
	1900	4.94	5.20	...	•	5.01
	1901	5.45	4.97	...	•	5.33
	1902	5.01	4.82	...	•	4.96
	1903	6.08	4.78	...	1.51	5.69
Owned by Companies, guaranteed under the old contracts.	1899	5.85	...	...	...	5.25
	1900	5.62	...	...	...	5.62
	1901	5.85	...	...	...	5.25
	1902	5.38	...	...	...	5.36
	1903	5.42	...	...	...	5.43
Owned by Companies, guaranteed under modern contracts.	1899	...	1.02	...	...	1.02
	1900	3.13	3.10	...	...	3.11
	1901	3.80	3.83	...	...	3.91
	1902	4.45	4.53	...	...	4.49
	1903	4.62	4.75	...	...	4.69
Owned by District Boards	1899	...	...	...	...	...
	1900	...	3.69	...	...	3.69
	1901	...	4.23	...	...	4.22
	1902	...	3.84	...	...	3.84
	1903	...	4.58	...	...	4.56
Owned by Branch Line Companies receiving rebates from traffic interchanged with main lines.	1899	2.35	3.44	...	...	2.50
	1900	3.33	6.89	...	...	3.53
	1901	4.29	4.75	...	...	4.33
	1902	3.92	5.02	...	...	4.00
	1903	4.19	3.71	...	...	4.13
Owned by Companies subsidized by the Government of India.	1899	4.93	10.96	...	...	5.67
	1900	4.66	10.41	...	...	5.37
	1901	6.14	9.50	...	...	6.53
	1902	6.29	9.34	...	...	6.69
	1903	6.12	8.51	...	...	6.46
Owned by Companies subsidized by Local Governments.	1899	...	4.35	...	6.32	4.79
	1900	...	4.65	...	8.13	5.43
	1901	...	5.99	...	7.59	5.29
	1902	...	3.89	...	8.62	5.02
	1903	...	5.56	...	9.34	7.38
Owned by Companies subsidized by District Boards.	1899	...	4.51	4.32	6.06	4.96
	1900	...	7.17	4.82	6.60	6.43
	1901	...	6.67	3.11	6.21	5.75
	1902	...	6.47	5.16	6.95	4.65
	1903	...	8.30	4.42	7.37	6.86
Owned by Companies receiving land only from the Government of India.	1899	8.55	5.24	4.75	...	5.34
	1900	9.03	4.71	3.13	...	4.80
	1901	8.81	5.23	4.66	...	5.30
	1902	8.56	4.71	3.41	...	4.77
	1903	9.13	5.73	0.55†	...	4.85
Owned by Unassisted Companies	1899	...	1.72	1.27	...	1.52
	1900	...	1.40	2.18	...	1.73
	1901	...	0.68	2.55	...	1.38
	1902	...	0.03	2.54	...	0.96
	1903	...	•	2.50	...	0.64
Owned by Native States	1899	4.72	4.03	4.28	...	4.32
	1900	5.72	4.35	3.81	...	4.90
	1901	4.93	3.87	3.75	...	4.31
	1902	5.21	3.67	3.58	6.33	4.29
	1903	4.83	4.21	2.74	1.63	4.38
Owned by Foreign States	1899	...	1.11	...	...	1.11
	1900	...	•	...	...	•
	1901	...	•	...	...	•
	1902	...	0.59	...	...	0.59
	1903	...	1.43	...	...	1.43

In the foregoing paragraphs are recorded the statistical results of the working of railways. The Capital outlay on which the calculations have been based is the sum actually expended in the construction of the several railways and on lines partly open; no account having been taken of *premia* in the purchase of railways by the State and of other special items of Capital expenditure. The net earnings have been arrived at by deduction from gross earnings of the expenses incurred in the maintenance and working of the lines; no deduction having been made of interest on Capital outlay and other charges met from the Revenue derived by railways.



## Financial results.

Financial results to the State.

## Financial results to the State.

27. The financial result of the working of the State and Guaranteed railways for the year 1903 was a net gain to the State of Rs. 1,33,61,222, the largest yet obtained in any year, after meeting, in addition to the expenses of working, all charges for interest on Capital outlay by the State and on Capital raised by Companies, and also the annuity payments for railways purchased by the State, including both interest and the portion that represents redemption of Capital. This is the fourth year in succession in which there has been a surplus.

In the subjoined table, which gives details of the charges against Revenue for the year 1903 in comparison with the two preceding years, the ordinary interest charges are first deducted, and on this basis, *i.e.*, after excluding the portion of the annuity payments representing redemption of Capital, the surplus to the State for the year 1903 amounts to Rs. 2,28,26,177. It is to be noted that even this understates the real surplus derived from the railways open to traffic, as the interest charges include the interest on outlay on lines under construction, which, if these lines were being constructed by private enterprise, would be charged to the Capital account.

The results for the two old Guaranteed railways, the Bombay, Baroda and Central India and the Madras railways, are shown in a separate column in this table in order to bring out the unfavourable effect to the State of the higher rate of guaranteed interest (5 per cent.) paid on nearly the whole Share Capital of these lines. On these two railways there was a loss to the State of over 31 lakhs of rupees.

	1901.			1902.			1903.		
	State railways.	Guaranteed railways.	Total.	State railways.	Guaranteed railways.	Total.	State railways.	Guaranteed railways.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<b>REVENUE.</b>									
Gross traffic earnings—State railways.	27,22,43,003	...	27,22,43,003	25,08,52,102	...	25,08,52,100	29,90,67,706	...	29,90,67,706
Gross traffic earnings—Guaranteed railways.	...	2,74,25,599	2,74,25,599	...	2,75,84,610	2,75,84,610	...	2,95,84,050	2,95,84,050
Expoyment of advances of interest.—Subsidised railways.	4,61,228	...	4,61,228	7,63,462	...	7,63,462	5,34,961	...	4,24,841
<b>Total Revenue</b>	<b>27,27,03,229</b>	<b>2,74,25,599</b>	<b>30,01,28,828</b>	<b>25,16,15,564</b>	<b>2,78,64,610</b>	<b>30,94,80,174</b>	<b>22,85,92,767</b>	<b>2,95,84,050</b>	<b>32,81,76,817</b>
<b>EXPENDITURE.</b>									
Working expenses.—State railways.	12,99,01,012	...	12,99,01,012	12,79,71,192	...	12,79,71,192	14,07,14,217	...	14,07,14,217
Working expenses.—Guaranteed railways.	...	1,28,96,287	1,28,96,287	...	1,39,55,568	1,39,55,568	...	1,54,20,965	1,54,20,965
Share of surplus profits paid to Companies.—Guaranteed railways.	...	18,11,890	18,11,890	...	72,93,644	72,93,644	...	15,12,518	15,12,518
Share of surplus profits paid to Companies.—State railways.	42,52,162	...	42,52,162	37,56,801	...	37,56,801	40,20,025	...	40,20,025
Land and Superintention charges.—Guaranteed railways.	...	-1,94,361	-1,94,361	...	-85,699	-85,699	...	-1,790	-1,790
Land and subsidy charges.—	1,24,761	...	1,24,761	6,94,486	...	6,94,486	3,01,446	...	3,01,446
Miscellaneous railway expenditure.—	6,98,052	...	6,98,052	10,55,292	...	10,55,292	10,07,603	...	10,07,603
<b>Total Expenditure</b>	<b>19,69,79,998</b>	<b>1,45,03,736</b>	<b>14,94,82,724</b>	<b>14,34,77,771</b>	<b>1,50,55,520</b>	<b>18,85,31,291</b>	<b>14,80,47,191</b>	<b>1,70,31,719</b>	<b>16,30,79,910</b>
<b>Net Revenue</b>	<b>14,57,24,241</b>	<b>1,29,21,863</b>	<b>15,66,46,104</b>	<b>12,81,37,800</b>	<b>1,28,31,090</b>	<b>12,06,68,980</b>	<b>15,26,45,566</b>	<b>1,25,52,337</b>	<b>16,51,97,903</b>
<b>ORDINARY INTEREST CHARGES.</b>									
Interest on Capital outlay.—State railways.	4,49,54,370	...	4,49,54,370	4,72,80,694	...	4,72,80,694	4,32,58,942	...	4,32,58,942
Interest on debt for purchase of railways.	1,72,22,478	...	1,72,22,478	1,79,03,187	...	1,79,03,187	1,77,78,874	...	1,77,78,874
Interest on advances of Capital to Companies.	69,85,434	...	69,85,434	54,29,963	...	54,29,963	59,82,503	...	59,82,503
Interest on Capital raised by Companies.	1,59,26,322	...	1,59,26,322	1,74,69,964	...	1,74,69,964	1,80,73,855	...	1,80,73,855
Portion of annuities in purchase of railways representing interest on Capital.	3,60,88,503	...	3,60,88,503	3,58,07,457	...	3,58,07,457	3,55,87,500	...	3,55,87,500
Interest on Capital of Guaranteed Companies.	...	1,58,20,302	1,58,20,302	...	1,55,69,751	1,55,69,751	...	1,56,09,702	1,56,09,702
<b>Total Interest</b>	<b>12,00,08,107</b>	<b>1,58,20,302</b>	<b>13,62,28,409</b>	<b>12,38,93,425</b>	<b>1,55,69,751</b>	<b>13,94,63,176</b>	<b>12,66,72,024</b>	<b>1,56,09,702</b>	<b>14,23,71,726</b>
Surplus of net Revenue over interest.	2,57,16,134	-28,98,439	2,04,19,695	1,42,45,375	-30,88,661	1,12,00,714	2,59,73,542	-31,47,365	2,29,26,177
Portion of annuity payments representing redemption of Capital also charged against Revenue.	88,78,497	...	88,78,497	91,65,078	...	91,65,078	94,04,055	...	91,04,958
<b>Actual net gain +, or loss —</b>	<b>+1,89,39,637</b>	<b>-28,98,439</b>	<b>+1,15,41,198</b>	<b>+50,80,297</b>	<b>-30,88,661</b>	<b>+20,41,636</b>	<b>+1,66,69,487</b>	<b>-31,47,365</b>	<b>+1,33,61,222</b>

**Financial results.**  
**Chief events.**

Capital Liability of the State—  
See Appendix 9.

28. As regards an account of the Capital liability in connection with railways owned by the State, there are some complications in stating the amount owing to the fact that in the case of some of the lines taken over, the purchase price is being paid by means of annuities. In these cases, it seems correct to deduct from the original commuted Capital at which the lines were taken over, the amount redeemed by annuity payments up to date. On this basis the subjoined table shows the Capital liability at the end of 1903 on account of all railways classed as State railways; the State outlay, as recorded in rupees in the accounts being converted into sterling at the rate of Rs. 15=£1. The total Capital amounts to £234,544,972 (the details by railways being shown in Appendix 9); and on this the net revenue of the State railways for 1903, as shown in the statement in paragraph 27, £10,176,371 (Rs. 15,26,45,566), gave a return of 4.34 per cent. The total Capital of the two old Guaranteed railways amounts to £23,161,594, as per details below, and on this the net earnings of these railways for 1903, £836,823 (Rs. 1,25,52,337) gave a return of 3.61 per cent.

*Capital liability on account of railways classed as State railways at end of 1903.*

1. Share Capital of purchased railways being paid off by annuities :—

	£	£
Commuted value of stock purchased ... ..	85,010,259	
<i>Less—</i>		
Amount redeemed by annuity payments ... ..	5,081,677	
Unredeemed Capital in respect of annuities purchased by creation of debt (liability included under item 3)	11,797,768	
Great Indian Peninsula railway annuity exchanged for new stock of that railway (liability included under item 5) ... ..	1,750,000	
	18,629,445	66,380,814
2. State outlay ... ..		83,986,124
3. Debt incurred for purchase of railways ... ..		34,422,430
4. Capital advanced by Government to Companies ... ..		12,446,901
5. Capital raised by Companies on the Secretary of State's guarantee (including overdrafts of Capital) ... ..		37,308,653
		234,544,972

*Capital liability on account of Guaranteed railways at end of 1903.*

Capital raised on the Secretary of State's guarantee, including overdrafts :—

	£	£
Madras railway ... ..	12,282,625	
Bombay, Baroda and Central India railway ... ..	10,878,969	23,161,594

**Chief events.**

29. The chief events of the year are recorded below :

Chief events of the year.

*General.*—The railway from Mettupalaiyam to Coonoor, 16.90 miles, was purchased by the State from the Nilgiri Railway Company with effect from the 1st January 1903. The working of the line continues in the hands of the Madras Railway Company.

From the 3rd March 1903, the Tinsukia junction station of the Assam Railways and Trading Company was made over to the Assam-Bengal Railway Company for joint working and through booking was introduced between the Dibru-Sadiya and Assam-Bengal railways.

## Chief events.

Chief events—  
contd.

During the first-half of 1903 the jetties at Chittagong were transferred to the Assam-Bengal Railway Company on certain conditions.

From the 15th November 1903, arrangements were made with the Bombay Steam Navigation Company for the through booking of goods between stations on the Morvi railway and the Bombay harbour *via* Navlakhi out-agency.

*Contracts executed for the construction and working of railways.*—On the 1st July 1901 and the 6th November 1902, Indentures were executed for the working and maintenance of the Powayan Steam tramway by the Rohilkund and Kumaon Railway Company.

On the 10th December 1901, an agreement was entered into between the East Indian Railway Company and the Administration of the Oudh and Rohilkhand State railway, for the exercise of running powers by trains of the Oudh and Rohilkhand State railway over the Ghaziabad-Delhi section of the East Indian railway and for the interchange of traffic at Ghaziabad.

On the 26th August 1902, an Indenture was executed with the Barsi Light Railway Company for the construction, maintenance and working of the Barsi Junction-Pandharpur and Barsi Town-Tadwalla extensions of the Barsi Light railway.

On the 9th October 1902, an agreement was entered into between the Administration of the North Western State railway and the Bombay, Baroda and Central India Railway Company, for the working by the former of the joint stations, Goniana, Jaitu and Kotkapura on the Bhatinda-Kotkapura section of the Rajputana-Malwa railway.

On the 31st December 1902, an Indenture was executed for the working by the Madras Railway Company of the Madras-Vizagapatam section of the East Coast State railway.

On the 15th January 1903, an Indenture was executed for the construction and working by the Bengal and North-Western Railway Company of the Ghazipur-Ballia, Azamgarh-Shahganj and Aunrihar-Jaunpur extensions.

On the 15th June 1903, a revised agreement was executed for the working of the Cooch Behar railway by the Administration of the Eastern Bengal State railway.

On the 23rd November 1903, an agreement was entered into between the Government of His Highness the Maharaja Gaekwar and the Bombay, Baroda and Central India Railway Company for the working by the latter of the Vijapur-Kalol-Kadi railway.

On the 30th December 1903, an Indenture was executed for the construction and working by the Madras Railway Company of the Azhikal-Mangalore State railway.

*Report on the working of Indian railways.*—Mr. T. Robertson, C.V.O., who had been appointed by His Majesty's Secretary of State for India—

- (i) to enquire into and report upon the administration and working of Indian railways, whether controlled by the State or by Companies, with special reference to the system under which they should be managed in India in the future;
- (ii) to report upon the feasibility of a systematic plan of railway development in India, to be worked up to by the Government over a series of years;
- (iii) to advise as to the management and development of the traffic, the convenience of the public, and the improvement of the revenue;
- (iv) generally to make such suggestions as he may think useful for any or all of these purposes, including the extension of branches and light railways as feeders of the main lines;

has submitted his report, which has been forwarded to the Secretary of State with the views and proposals of the Government of India.

*Indian Railway Conference Association.*—In February 1902, a Conference was held at Calcutta at which it was proposed to form a "Chamber of Indian Railways," or a Conference independent of Government. Rules defining the functions of the

proposed Chamber were framed and submitted to the Boards of Directors of the several Railway Companies, who, at a meeting held in London in May 1903, agreed to the formation of an "Indian Railway Conference Association," independent of Government with powers to—

Chief events—  
contd.

- (i) elect annually a President from the representatives of the railway administrations composing it;
- (ii) appoint a paid Secretary with the necessary office establishment;
- (iii) (a) frame, by general agreement, regulations for the management of traffic interchanged between the railways, parties to the Association, subject to certain fundamental rules which were approved at that meeting;
- (b) consider questions, submitted for opinion by the Government of India or by any railways represented in the Association, on matters not falling within the provisions of the railways' contracts with the Secretary of State; and
- (c) act as a Board of conciliation between its members.

Representatives of the several railways, parties to the original Railway Traffic Conference, accordingly assembled at Simla in October 1903 and formed the "Indian Railway Conference Association." Proposals to extend the functions of the Association were framed, and submitted for approval to the Boards of Directors but have not been accepted.

*Rate for conversion of sterling.*—With effect from the 1st January 1903, the undermentioned Railway Companies have agreed to adopt the fixed rate of Rs. 15=£1, in lieu of the varying half-yearly rates prescribed in certain clauses of their contracts, for the purposes of converting sterling payments in England into Indian currency and also for the rates at which Capital raised in England has to be converted into rupees in the Indian accounts—

Assam-Bengal, Bengal Central, Bengal-Nagpur, Burma, Indian Midland, Southern Mahratta, Rohilkund and Kumaon (for working the Lucknow-Bareilly railway), Bengal and North-Western (for working the Tirhoot railway), East Indian, Great Indian Peninsula, South Indian, Bombay, Baroda and Central India, Madras (for extensions), Delhi-Umballa-Kalka, Southern Punjab, South Behar, Bengal-Dooars, Barsi Light, and Noakhali (Bengal) Railway Companies.

*Comforts of lower class passengers.*—A representative public meeting was held at Lucknow on the 1st December 1903, to consider the best means of ensuring the convenience and comfort of lower class passengers travelling on the Oudh and Rohilkhand State railway, and steps are being taken to give effect, as far as possible, to the resolutions which were framed.

*Ambulance institutions to aid passengers wounded in railway accidents.*—During the year, ambulance classes were held at Trichinopoly, and 15 employes of the South Indian Railway Company obtained the St. John's Ambulance Association certificates. An ambulance corps has been started on the Oudh and Rohilkhand State railway.

*Standardization of locomotives.*—In connection with the question of the relaxation of the existing standard dimensions for Indian railways as regards fixed and moving dimensions, and regulations regarding the strength of bridges and the axle loads and weight of rolling-stock, the Government of India have issued revised rules for the design and inspection of railway girder bridges and for the corresponding amendments to the standard dimensions.

The Government of India have also received from the Secretary of State, standard designs by the English Engineering Standards Committee for a passenger and a goods 5' 6" gauge engine, and standard designs for a passenger, a mixed, and a heavy goods 3' 3 $\frac{3}{8}$ " gauge engine, and these are under consideration.

*Visit of Mr. Grant Burls, Director General of Stores, India Office, to India.*—At the invitation of the Government of India Mr. Grant Burls was deputed to India, where he arrived in September 1903, to confer with the authorities in this country on the subject of ensuring a regular and timely supply of the stores required through the Stores Department of the India Office.

**Chief events.  
Important  
works  
completed.**

Chief events—  
concl'd.

*Coal loading depôt at Luff Point.*—In November 1903 a Commission was appointed by the Government of India to enquire into and advise upon the proposal for the establishment of a loading depôt at Luff Point on the right bank of the Hooghly river for the accommodation and shipment of coal. The report has been received and is under consideration.

*North and South line connecting Ceylon and Upper India.*—The Commission which, under the orders of the Government of India, assembled in Madras in February 1903, to collect evidence and information with a view to advising Government in regard to the best means of effecting a 5' 6" gauge connection between the Indian system of 5' 6" gauge railways and the Ceylon railways on the same gauge, and to report on certain connected questions, has submitted its report, upon which it has been decided that immediate action is not necessary. A project for extending the Pamban branch of the South Indian railway on to Ramesvaram, and for making a ship canal through the island and establishing a coaling station there and a similar ferry service across Palk Strait to Ceylon has, however, been prepared, and is under consideration.

*Branch or feeder line terms.*—The question of the general revision of the terms for the construction, outside the Government of India "Programme," of branch or feeder lines of railway by private enterprise, is in abeyance pending the consideration of the proposals made by Mr. Robertson, C.V.O., in his report on the working of Indian railways.

*Construction of feeder lines by Local Boards.*—Local Boards are permitted to devote surplus funds to the promotion of railways or other public works within their districts. To meet the wants of Boards, whose revenue and expenditure balance, the Madras Government, with the concurrence of the Government of India, have authorized Boards to levy a special cess of three pies in the rupee on the assessment of all occupied lands, provided the money so obtained is expended on the construction of railways or tramways. To further assist Local Boards in such enterprise, the Government of India are prepared to advance, on the security of this special cess, such funds as may be necessary in cases where the Boards are unable to raise all the money required. It is to be hoped that other Local Governments will follow the example set by the Government of Madras. For further particulars see Appendix C, pages 325 to 330.

**Important works completed.**

30. The following works of importance were completed during the year 1903 :

The Damoodur bridge (5 spans of 150-foot, one of 140-foot and one of 40-foot girders) between Bhojudih and Bhaga on the 20th April 1903.

Bengal-Nagpur railway.

The extension of the locomotive shops at Parel; and the protective works at the Nerbudda bridge (25 spans of 180½-foot girders) between Anklesvar and Broach.

Bombay, Baroda and Central India railway.

The new stations at Chinsura and Belur; the Howrah fore-shore wall in front of the joint passenger station with the Bengal-Nagpur railway; the levelling of the Cawnpore (Collectorgunge)

East Indian railway.

station yard; and the renewal of fencing on the Loop line.

The new foot overbridge at the Masjid station; the new local goods shed at Dadar station; and on the Bhopal-Itarsi railway, the relaying of 51 miles of line with 80 lb steel rails and cast iron bowl sleepers.

Great Indian Peninsula railway system.

The cableway across the river Indus at Khushalgarh on the 1st April 1903; and the roadway and footways of the bridge over the Kabul river at Nowshera on the 1st December 1903.

The Dehing bridge (7 spans of 150-foot girders) between Naharkatiya and Bordubi Road on the 11th May 1903; and tunnels No. 7 and 10 (845 and 526 feet) between Harangajao and Jatinga and Hafiong and Mahur respectively in March 1903, No. 2 (518 feet), No. 1 (1,923 feet), No. 4 (860 feet) between Mahur and Maibang in July, September and November 1903 respectively.

Assam-Bengal railway.

Bengal and North-Western railway.

The workshop at Gorakhpur for building wagons.

The Tara Devi tunnel No. 1 (1,598 feet) and the Inverarm tunnel (1,125 feet) in September 1903, and the Koti tunnel No. 1 (2,280 feet) in October 1903.

Kalka-Simla railway.

31. Appendices 36 and 37 contain particulars of some of the important railway bridges and tunnels open for traffic on the 31st December 1903.

Bridges and tunnels.—See Appendices 36 and 37.

Important works completed.



## Accidents.

## Accidents.

32. The following is a statement of accidents of all descriptions to persons which have occurred during the last five years :

Accidents of all descriptions—  
See also Appendix 30.

YEAR.	Passengers.						Servants.						Other persons.								Total all classes.			
	From accidents to trains, rolling-stock, permanent-way, etc.		By accidents from other causes, including accidents from their own want of caution or misconduct.		Total.		From accidents to trains, rolling-stock, permanent-way, etc.		By accidents from other causes, including accidents from their own want of caution or misconduct.		Total.		Whilst passing over railways at level crossings.		Trespassers.		Suicides.		Miscellaneous, not included in preceding columns.				Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.			Killed.	Injured.
1899.	7	86	60	191	67	277	20	92	182	339	202	431	21	10	445	149	108	6	25	23	594	188	863	896
1900.	14	85	83	258	97	343	21	84	236	384	257	468	32	17	698	236	164	8	17	85	911	296	1,265	1,107
1901.	8	47	91	251	94	298	14	88	261	375	275	458	41	17	542	170	129	9	33	18	745	214	1,114	970
1902.	127	184	98	289	225	478	37	95	269	364	306	459	29	16	542	162	108	5	21	26	700	209	1,331	1,141
1903.	49	117	93	331	142	448	15	95	275	390	290	485	28	10	518	172	138	5	35	22	711	209	1,143	1,142

33. The following are particulars of the more serious train accidents :

Train accidents.

Nos. 15 down passenger and 80 up goods trains collided at mile 533-9 between Sini and Gomharria on the 27th December 1903, Bengal-Nagpur railway. owing to the driver of the goods train having started on an incomplete conditional line clear ticket from Gomharria. Both the engines and 5 carriages were smashed, 12 passengers and 3 railway servants killed, and 9 passengers and 6 railway servants injured.

Nos. 139 up and 140 down goods trains collided at mile 118-22 between North Western State rail. Hyderabad and Rahoki flag stations, on the 8th June 1903, owing to carelessness on the part of the assistant station master at Hyderabad. The rolling-stock and permanent-way were seriously damaged, and 4 firemen injured.

Nos. 13 up mixed and 110 down goods trains collided at Sukheke station on the 13th June 1903, owing to the driver of the goods train having run against signals while the mixed train was entering the loop or station line. The rolling-stock was considerably damaged, and eleven passengers were killed and seven injured.

Nos. 119 up goods and 6 down mixed trains collided at mile 1-18 between Bengal and North-Western Sonepore and Bunwarchak stations on the 12th June 1903, owing to the assistant station master and signaller having allowed the goods train to leave Sonepore after the mixed train had left Bunwarchak. Three 3rd class carriages, one horse-box, one brake van and one covered goods wagon, belonging to the mixed train, were wrecked; sixteen passengers and the brakesman of the mixed train were killed, and twenty-five, of whom one subsequently died, were injured.

No. 8 down train parted between Marison and Bakhshi-ka-talab stations on the Rohilkund and Kumaon 21st April 1903, owing to the draw-bar of the leading railway. coupling of a 3rd class carriage breaking. The front portion of the train stopped at Bakhshi-ka-talab station and the rear portion crashed into it. The rolling-stock was damaged, two 3rd class passengers were killed and ten others injured.

Damages by  
floods and  
rainfall.

Damages by floods and rainfall.

Damages by  
floods and  
rainfall.

34. The following are particulars of the more serious damages by floods and rainfall :

On the 25th July, owing to heavy rainfall, 600 feet of the earth embankments at mile 10 on the Patri branch were washed away, necessitating transshipment. Through communication was restored on the 28th of the month.

On the 10th October, owing to very heavy rainfall, the line sank considerably at mile 77.5, between Fatehgarh and Kamalganj, on the Cawnpore-Achnera section of the Rajputana-Malwa railway, and caused the derailment of the engine and ten wagons of 64 Down train, the rolling-stock sustaining serious damage. Through communication was restored after 16 hours.

On the 25th July, the line at mile 455.20, between Indore and Palia, was completely washed away for a distance of 250 feet, owing to a tank having burst about 2 miles to the west of the line. No. 44 Down train ran into the breach, resulting in the derailment of and damage to the engine tender and eight wagons. A diversion was put in and communication restored in 11 hours.

Owing to an overflow of the Kosi river, the 3' 3 $\frac{3}{4}$ " gauge line between Debiganj and Ancharaghat, 6.25 miles, on the Behar section, which had been damaged by floods during 1902, was rendered unsafe and closed to traffic on the 27th June 1903. Subsequently the south approach of the Ferriani bridge and other portions of the line were breached and damaged. Two channels of the Kosi, discharging about half its full contents, now flow permanently through the section—(i) at the Khoradbar bridge (6 spans of 40 feet) where two piers have been overturned and one span washed away, and (ii) through the embankment south of the Ferriani bridge. It has been decided to abandon this section of line.

On the 6th July, a part of the north approach of the Balla bridge on the Cooch Behar railway, measuring about 150 feet, was washed away by floods from the Balla river. On the following day the slope of the bank and the part of the core were also washed away, necessitating slewing of the line. Traffic was stopped on the 6th July 1903 and resumed on the 12th of the month over a diversion.

Owing to the breaching of several large tanks on the Mysore Plateau, the Palar river spilled its banks on the 12th November, seriously damaging the works, permanent-way and bridges at Mailpatti station and its neighbourhood, on the South-West line. Through traffic was restored on the 30th of the month.

On the 7th and 8th November, a cyclonic storm burst over the Nellore district seriously damaging the works, permanent-way and approaches to six bridges on the North-East line (East Coast State railway) between miles 119 and 195.

On the 28th July, owing to floods caused by heavy rainfall and the breaching of adjacent tanks, the line was breached between Ghana-pur and Raghunathpalli, Kazipet and Warangal, and Nekonda and Chintalapalli on the Nizam's Guaranteed State railway, interrupting through communication till the 8th August.

On the 28th July, owing to heavy rainfall and the breaching of adjacent tanks, the line was breached at several places between Ranjani and Koalla on the Hyderabad-Godavari Valley railway. No. 33 Up Mixed train ran into a breach, resulting in three wagons being capsized and one being derailed. Through communication was restored on the 14th August.

On the 17th September, owing to heavy rainfall, the line was breached in several places between Khammameth and Ghanapur on the Nizam's Guaranteed State railway, and a bridge at mileage 191 was badly damaged, necessitating transshipment. Through communication was restored on the 18th October.

On the 23rd July, the line near points No. 1, in the Kathala station yard, and on the following day, the line at mile  $\frac{8.88}{10-11}$  near Hari-pur Band, between Kathala and Wazirabad, were breached by floods from the river Chenab. The passage of trains was rendered unsafe and transshipment resorted to. Through communication was restored on the 27th of the month.

Damages by  
floods and  
rainfall.  
Damages by  
floods and rain-  
fall—*continued.*

On the 14th August, one pier of the Badli Jumna bridge between Sarsawa and Jagadhri was washed away and the line breached by heavy floods, causing interruption of traffic. A pathway across the break, extending about a quarter of a mile, was completed on the 16th August and arrangements made for transshipment. A diversion was put in and opened on the 23rd of the month.

On the 10th and 11th September, a succession of breaches occurred through heavy rainfall between Khushalgarh West and Thal in which the Shega bridge, between Chikarkot and Raisan stations, was washed away. A diversion was put in and opened on the 17th of the month.

On the 26th and 27th August, owing to very heavy rainfall in the district to the east of Lucknow, the chord line was breached in several places, necessitating the closing of the line from the 27th August to 11th September, and the diversion of traffic *via* the loop line.

On the 11th and 12th August, owing to heavy rainfall, the Sukrao nulla overflowed its banks and breached the Kotdwara branch, necessitating the transshipment of traffic till the 16th of the month.

On the 21st June, owing to heavy rainfall, the embankments of the Noakhali (Bengal) Branch railway subsided, necessitating the suspension of traffic from that date to the 24th June, and from the 28th of that month to the 1st July 1903.

On the 14th August, floods from the Sikhrana river breached the Sagauli-Raxaul Branch railway at diversions in three places, and interrupted traffic from the 14th August to the 14th September.

A heavy rise of the Irrawaddy river at the end of August, combined with continuous heavy rainfall, resulted in impounding flood water to depths varying from 8 to 16 feet against the railway embankment on the Tharrawaw branch at mile 84-B, between Letpadan and Gamonzeik. This condition continued till the 15th September, when a pier on well foundations of the bridge at mile 84/11-B (9 spans of 40-foot girders) was undercut and collapsed, dropping the girders of the 7th and 8th spans. Goods traffic in wagon loads was stopped, but arrangements were made for the transshipment of passengers and light goods. A diversion was put in and through traffic resumed on the 18th November.

On the 1st September, the banks at miles 530 and  $5\frac{35}{4}$  on the Lashio branch, between Se-en and Manpwe, sank very considerably, necessitating the closing of the line to traffic till the 6th November, when through traffic was resumed.

On the 19th September, the bank at mile  $1\frac{62}{8}$ -B on the Bassein branch, between Gon Min and Daga, was breached. Trains were pushed across the breach till the 25th of the month, when through traffic was resumed.

On the 17th October, an exceptionally heavy fall of rain considerably damaged the bank between miles 319 and  $320\frac{1}{2}$  south of Thedaw on the main line, interrupting through traffic till the 19th of the month.

On the 9th October, owing to heavy and continuous rainfall, the embankment between miles 2/6 and 2/9 on the Powayan Light railway was washed away, rendering transshipment necessary. The line was made passable for trains on the 11th of the month.

On the 12th November, owing to heavy rainfall the main line, miles 107/9 to 108/3, between Serndanur and Panruti, was submerged, resulting in a wash-out between miles 108/1 and 108/3. Through communication was restored on the 16th November. The line was also damaged in several other places during the year, necessitating transshipment for short periods.

On the 10th November, owing to abnormally heavy rainfall, the cutting at mile 144/6, between Maklidrug and Dodballapur, on the Guntakal-Bangalore section slipped and totally blocked the road necessitating transshipment. The line was cleared and through communication restored on the 15th of the month.

On the 12th November, at mile  $9\frac{23}{10}$ , between Yeliyur and French Rocks, on the Mysore section, floods scoured out the foundations of a 20-foot arch bridge and undermined the north abutment, which subsided, and about 30 feet of bank was washed away behind the abutment. Through communication was restored on the 15th November, transshipment being resorted to in the interval.

**Railway staff.**

**Railway staff.**

35. The following table shows the number of employes of the different races, European, Eurasian and Native:

Railway staff—  
See Appendix 31.

Years.	Europeans.	Eurasians.	Natives.	Total.
1899 .	5,292	7,393	329,089	341,774
1900 .	5,229	7,364	337,383	349,976
1901 .	5,493	8,175	353,278	366,946
1902 .	5,875	8,271	378,355	392,501
1903 .	6,022	8,661	387,566	402,249

36. Of the Europeans and Eurasians, the following number were enrolled as Volunteers:

Volunteer force—  
See Appendix 32.

Year.	Sergeant Instructors furnished by the Army.	Enrolled strength of Volunteers.					Total number of employes enrolled as Volunteers.	Total number of European and Eurasian employes on railways.
		EFFICIENTS.			Non-efficient.			
		Officers.	Non-Commissioned Officers.	Volunteers.				
1899 .	123	395	1,460	9,958	152	11,965	12,685	
1900 .	122	389	1,406	10,068	176	12,038	12,593	
1901 .	120	393	1,345	9,638	300	11,676	13,668	
1902 .	121	380	1,305	9,733	604	12,022	14,146	
1903 .	122	403	1,333	9,509	1,132	12,427	14,683	

Police force—  
See Appendix 33.

37. The Police force employed for the maintenance of law and order on railways and for the protection of railway property, is provided by the Civil Department, the State bearing, except in the case of State lines worked by the State and the old Guaranteed railways, three-tenths, and the railways paying seven-tenths of the expense incurred.

Provident Fund—  
See Appendix 31.

38. There is a Provident Fund, in connection with every railway in India, the object of which is to make some provision for employes against their retirement, or for their families in the event of their dying while still in the service of the railway. The money in this fund cannot be attached by courts of law, nor can it be alienated or hypothecated by the employe. Every monthly paid employe, who is neither pensionable nor a menial servant, is obliged to be a member of this fund and is required to subscribe monthly amounts varying on different railways, but not exceeding 1-12th of his salary. At the close of the half-year, the railway distributes, as bonus among the depositors, a first contribution, equal to one-half of such subscriptions, and a second contribution, if the earnings permit of this being done, not exceeding one-half of such subscriptions or one per cent. of net earnings. In the case of the more prosperous railways, the double contribution is now generally obtained by depositors. The amount thus subscribed amounted at the end of 1903 to 455 lakhs of rupees, the bonus paid by railways amounting to over 113 lakhs.

39. Fines inflicted on, and bonus contributions to the Provident Fund for- **Fine Funds—  
See Appendix 34.**  
feited by employes are not credited to the revenues of the railway, but to what is known as the Fine Fund. The amounts thus withheld are shown in Appendix 34. On most of the railways the money goes back again to the employes in the shape of contributions to recreation clubs, schools and similar institutions and in the relief of families left in destitute circumstances.

40. On the larger railways, schools are provided and maintained at all centres **Schools—  
See Appendix 35.**  
where the number of children is sufficient to justify the employment of the teaching staff. The fees charged are graduated so as not to press too heavily on the poorer employes. Government in the Educational Department, allow certain grants towards the maintenance of the schools, and any deficit is made good from the revenues of the railway or from the Fine Fund. Where the number of employes is not large enough to justify the provision of a railway school, and there already exists a public or private school in the town, the schooling fees are borne wholly or in part by the railway.

The number attending school amounted, at the close of 1903, to 6,965 children and 4,976 apprentices and workmen. The contributions by Government amounted to Rs. 38,175; by the railways from revenues Rs. 1,02,330; from the Fine Fund Rs. 14,475; and by fees to Rs. 1,32,053.

The assistance thus given to employes is much appreciated, and a proper standard of education is ensured by the examination which is conducted yearly by the Government Inspectors of Schools before the grant can be drawn.

### Railway surveys.

41. The following surveys were completed during 1903 :

A line from Chindwara on the Jubbulpore-Gondia extension to Burcooe and **Railway surveys.**  
Bengal-Nagpur railway system. Sirgora in the Pench Valley coal-fields, 29.12 miles, on the 2' 6" gauge; also the setting out and demarcation of land for the Gondia-Chanda railway as a measure of famine relief work.

Lines from (1) Nar on the Tarapur-Cambay section of the Petlad-Cambay **Bombay, Baroda and Central India railway system.** railway to Nadiad, 20.25 miles, on the 5' 6" gauge; (2) Zankavao to Vijapur *via* Sarda, 37 miles, on the 2' 6" gauge; and (3) a re-survey of the Bahadarpur-Garda extension of the Gaekwar's Dabhoi railway, 6.50 miles, on the 2' 6" gauge.

Lines from (1) Ultadingi, about a mile from Sealdah, to Pattipuker and **Eastern Bengal State railway.** to the Arathoon jute mills, 1.75 miles; (2) a link to connect the Murshidabad branch with the Azimganj branch of the East Indian railway together with a bridge over the Bhagirathi, 5.82 miles; and (3) a bridge over the Ganges from Damukdia to Sara; all on the 5' 6" gauge.

Lines from (1) Asansol to Hariharpur, 52.35 miles; (2) Ondal to Sainthia, **East Indian railway.** 43.62 miles; (3) Khurja to Hapur, 38.87 miles; and (4) a chord line from Mirzapur on the main line to Maihar on the Jubbulpore line, 140 miles, on the 5' 6" gauge.

In connection with the Itarsi-Warangal project, lines from (i) Nagpur to **Great Indian Peninsula railway system.** Itarsi *via* Patan, Saongi, Sawargaon, Bailona, Multai, Amla, Budnoor and Shahpur, 179 miles; (ii) Wardha to Multai *via* Anji Arvi to about 8 miles south of Howurkhaia, then turning sharp north-east direct to Chkheree where it joins (i) at the 58th mile, 86 miles; and (iii) Warora to Bellarpur, 38 miles. Reconnaissance surveys in connection with the Itarsi-Nagpur project of lines, from (a) Wardha to Bailona direct, three lines 52, 55 and 61 miles; (b) Amla to Chindwara, 80 miles; and (c) Botorea, which is on alignment (b), down the valley of the river Tawa to Shahpur, 37 miles. All the foregoing on the 5' 6" gauge. A branch from Coorla to the Ballard Pier, 9 miles in connection with the Bombay Harbour railway.

Lines from (1) Jalna to Bhir, 62.97 miles, and (2) **Nizam's Guaranteed State railway.** a reconnaissance survey from Purna to Latur, 60 miles, on the 3' 3 $\frac{3}{8}$ " gauge.

Lines from (1) Sargodha to Shorkot Road (Jech Doab railway, Southern section), **North Western State railway system.** 103 miles, (2) Ferozepore to Minchinabad, 85.90 miles, (3) Shahdara (Lahore) to Lyallpur, 72.98 miles, with an alternative, Shahdara to Sangla, 55.17 miles, on the 5' 6" gauge and (4) an extension of the Jullunder-Hoshiarpore-Kapurthala railway from Kapurthala to Sultanpur, 15.72 miles, on the 2' 6" gauge.

**Railway surveys.  
Projects for new lines.  
Railway surveys—concluded.**

Oudh and Rohilkhand State railway. A line from Gujroura to Chandpur, 22·15 miles on the 5' 6" gauge.  
Assam-Bengal railway. Lines from (1) Kalaura to Sylhet, 34 miles; and (2) Akhaura to Asuganj, 19 miles, on the 3' 3 $\frac{3}{8}$ " gauge.

Bengal and North-Western railway system. Lines from (1) Burhwal to Sitapur, 60 miles; (2) Savan to Gopalgunj, 20·57 miles; (3) Daronda to Mahrajgunj, 3·90 miles, and (4) Bhagalpur on the East Indian railway to the Bengal and North-Western railway ghat station on the Ganges, 2·14 miles; all on the 3' 3 $\frac{3}{8}$ " gauge.

Bhavnagar-Gondal-Junagad-Forbandar railway. A reconnaissance survey for a line from Ranpur to Dhundhuka, 16·50 miles, on the 3' 3 $\frac{3}{8}$ " gauge.

Burma railways. A loop line from Thamaing on the Irrawaddy line to Malagon on the Sittang line, 6·70 miles, on the 3' 3 $\frac{3}{8}$ " gauge.

Rohilkhand and Kumaon railway system. Lines from (1) Pilibhit to Burmdeo, 38·44 miles, and (2) Lalkua to Kashipur, 45 miles, on the 3' 3 $\frac{3}{8}$ " gauge.

South Indian railway. Lines from (1) Pamban to Rameswaram, 11·83 miles, and (2) Dindigal *via* Satyamangalam to Mettupalaiyam, 137·09 miles, on the 3' 3 $\frac{3}{8}$ " gauge.

42. The following surveys are in progress:

Bombay, Baroda and Central India railway system.

Lines from (1) Virangam to Dhrangadra, 40 miles, and (2) Nagda to Muttra, 355 miles, on the 5' 6" gauge.

Eastern Bengal State railway system.

Lines from (1) Golakgunj near Dhubri to Salmara Road on the way to Gauhati, 55 miles; (2) from Katihar to Godagari, 105 miles, and (3) Raiganj to Malda, 42 miles; all on the 3' 3 $\frac{3}{8}$ " gauge.

East Indian railway.

A line from Barharwa *via* Azimganj to Katwa, 94 miles, on the 5' 6" gauge.

Great Indian Peninsula railway system. An alternative alignment of the Itarsi-Nagpur project (1) from a point near Shahpur on the alignment of the 1903 survey to Nagpur by a route to the east of existing alignments, length about 110 miles, with a branch from Meijawar to Chindwara and the coal-fields, 32 miles; (2) a second alternative alignment of the same project from Amla at mile 42 of the 1903 alignment, direct to Nagpur, 84 miles; and (3) a branch of the Agra-Delhi Chord railway from Muttra *via* Brindaban to Aligarh about 37 miles; all on the 5' 6" gauge.

Oudh and Rohilkhand State railway. The final location and staking out of the line from Phaphamau to Zafarabad (Allahabad-Jaunpur project), 57·50 miles, on the 5' 6" gauge.

South Indian railway.

Lines from (1) Palni to Podanur, 59 miles, on the 5' 6" gauge, and (2) Tinnevely to Tiruchendur, 38 miles, on the 3' 3 $\frac{3}{8}$ " gauge.

**Projects for new lines.**

Projects for new lines.

43. The Promoters who were originally negotiating for the construction, on the 3' 3 $\frac{3}{8}$ " gauge, of the Kurnool Road (Dhone)-Kurnool railway (Madras), 32 miles, and the Bezwada-Masulipatam railway (Madras), 50 miles, have been permitted to include in their scheme the Guntur-Repalli line (Madras), 38 miles, and the Phirangipuram-Gurzala line (Madras), 50 $\frac{1}{2}$  miles, for construction on the same gauge, and allowed an extension of time up to 30th April 1904 for the formation of a company and for raising the requisite capital. The concession has now lapsed.

The scheme for the construction, on the 2' 6" gauge, of the Raichur-Wondalli railway (Hyderabad), 43 miles, the concession for which was granted to the Wondalli (Deccan) Gold Mines Company and the Hyderabad (Deccan) Company in June 1900, has not advanced any further.

Revised proposals, from the Promoters, for the construction, on the 5' 6" gauge, of the Amritsar-Tarn Taran-Patti railway (Punjab), about 27 miles, are under consideration.

Negotiations which were stated in the last year's report to have been proceeding for the construction, on the 2' 6" gauge, of the Berhampore-Russelkonda railway (Madras), 49 miles, have not progressed, while those for the construction, on the 5' 6" gauge, of the Vizianagram-Raipur railway with Sointilla branch (Madras and Central Provinces), 359 miles, and the Kangra Valley, 2' 6" gauge (Punjab), have been terminated owing to the



**Projects for  
new lines.**

on the terms offered. The proposals for the construction of the Baran-Ajmer-<sup>Projects for new</sup> Marwar railway (Rajputana), 213 miles, on the 3' 3½" gauge, have been rejected in <sup>lines—concl'd.</sup> consequence of the Promoters requiring a firm guarantee of 3 per cent. in sterling.

Negotiations are still in progress for the construction, on the 2' 6" gauge, of the Rawalpindi-Murree railway (Punjab), 48 miles.

Proposals were received during the year for the construction of the following lines :—

	Gauge.	Miles.
(1) A light electric tramway from Sarai Kala <i>via</i> Abbottabad to the Kashmir frontier (North-West Frontier Province and Kashmir) . . . . .	3' 3½"	80
(2) Railways from—		
(a) Mymensingh <i>via</i> Netrokona to Bara Ari with a branch to Gauripur . . . . .	3' 3½"	36½
(b) Singhjani <i>via</i> Sherpur to Nalitbari . . . . .	2' 6"	25

The consideration of (1) was postponed pending a decision on the Kashmir railway scheme, while the Promoters of (2) were asked to renew their application in January 1904.

SIMLA;

Dated 21st May 1904.

C. W. HODSON, *M. Inst. C.E.*,

*Offg. Secretary to the Government of India,*

*Public Works Department, Railways.*

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**APPENDICES**  
**OF**  
**MILEAGE AND CAPITAL OUTLAY.**

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APPENDIX 1.

Appendix 1.  
List of Railways.

List of open lines of Railway at the close of the Calendar year 1903  
alphabetically arranged, with their lengths,  
the administrations by which worked, gauge and classification.

(Referred to in paragraph 3 of Report.)

Notes—For particulars of railways comprising each railway system, and of mileage laid with more than one track, see Appendix 3a.  
For mileage added from 1st January 1903 to 30th April 1903, see Appendix 3.  
For total mileage opened during, and at the end of each year, and the total mileage opened during the Viceroyalty of each Governor General, see Appendix 3.  
For mileage of individual railways opened each year from the commencement, see Appendix 3b.  
For mileage under construction or sanctioned, see Appendix 4.

Num- ber.	Name of Railway.	Letters used to denote names of railways.	Railway administration by which worked.	Date of first opening of any portion for traffic.	Gauge.	LENGTH OF RAILWAY, IN MILES, OPEN ON 31st DECEMBER 1903, UNDER SEVERAL HEADS OF CLASSIFICATION.							Lines in foreign territory.	REMARKS	
						State lines worked by agency of		Guaranteed railway.	Assisted railway.	Un-assisted railway.	Lines owned by Native States and worked by agency of				
						State railway.	Company.				Native State itself.	Company.			State railway.
<b>A.</b>															
3 (g)	Ahmedabad-Dholka*	A. D.	Bombay, Baroda and Central India Ry. Co.	23-3-03	3' 3 1/2"	...	...	...	33' 20	...	...	...	...	...	
3 (i)	Ahmedabad-Parantij†	A. P.		1-5-07	3' 3 1/2"	...	...	...	54' 70	...	...	...	...	...	
11 (e)	Assam-Bengal	A. B.	Assam-Bengal Ry. Co.	1-7-95	3' 3 1/2"	...	740' 33	...	...	...	...	...	...	...	
<b>B.</b>															
24 (e)	Barri Light‡	B. J.	Barri Light Ry. Co.	1-3-07	2' 6"	...	...	...	21' 00	...	...	...	...	...	
13 (e)	Bengal and North-Western (Company's section).†	B. & N. W.	Bengal and North-Western Ry. Co.	2-4-84	3' 3 1/2"	...	...	...	812' 36	...	...	...	...	...	
1 (e)	Bengal Central	B. C.	Bengal Central Ry. Co.	16-10-82	3' 6"	...	125' 01	...	...	...	...	...	...	...	
13 (a)	Bengal Doonars§	B. D.	Bengal Doonars Ry. Co.	15-1-83	3' 3 1/2"	...	...	...	30' 40	...	...	...	...	...	
13 (b)	Bengal Doonars Extension.†	B. D. E.		20-4-00	3' 3 1/2"	...	...	...	116' 36	...	...	...	...	...	
2 (e)	Bengal-Nagpur	B. N.	Bengal-Nagpur Ry. Co.	1880	5' 6"	...	1,652' 46	...	...	...	...	...	...	...	
8 (b)	Berwada Extension	B. E.	Nizam's Guaranteed State Ry. Co.	10-2-89	5' 6"	...	30' 53	...	...	...	...	...	...	...	
14 (e)	Bhavnagar-Gondal Junagad-Forbandar	B. G. J. P.	Bhavnagar-Gondal-Junagad-Forbandar Ry.	20-12-80	3' 3 1/2"	...	...	...	...	...	733' 19	...	...	...	
6 (b)	Bhopal-Itarsi (British section).	B. I.	Great Indian Peninsula Ry. Co.	1-6-83	5' 6"	...	15' 11	...	...	...	...	...	...	...	
				18-11-84	5' 6"	...	...	...	...	...	44' 28	...	...	...	
6 (c)	Bhopal-Ujjain	B. U.		11-11-85	5' 6"	...	...	...	...	...	113' 27	...	...	...	
18 (b)	Bikaner	J. B. B.	Jodhpur-Bikaner Ry.	9-12-81	3' 3 1/2"	...	...	...	...	...	245' 35	...	...	...	
6 (d)	Bina-Goona-Baran	B. G. B.	Great Indian Peninsula Ry. Co.	23-8-86	5' 6"	...	...	...	...	...	145' 03	...	...	...	
21 (b)	Birur-Shimoga	B. S. G.	Southern Mahratta Ry. Co.	1-12-88	3' 3 1/2"	...	...	...	...	...	37' 23	...	...	...	
3 (e)	Bombay, Baroda and Central India.†	B. B. & C. I.	Bombay Baroda and Central India Ry. Co.	10-2-00	5' 6"	...	...	...	304' 35	...	...	...	...	...	
4 (b)	Brahmaputra-Saltanpur.††	B. B.	Eastern Bengal State Ry.	1-4-88	3' 3 1/2"	...	...	...	89' 37	...	...	...	...	...	
23 (a)	Bukhtiarpore-Behar Light.§	B. B.	Bukhtiarpore-Behar Light Ry. Co.	1-7-03	2' 6"	...	...	...	18' 50	...	...	...	...	...	
15 (a)	Burma	B.	Burma Railways Co.	2-5-77	3' 3 1/2"	...	1,338' 97	...	...	...	...	...	...	...	
<b>C.</b>															
10 (c)	Cawnpore-Burhwal (metro gauge link).	C. B. M.	Udth and Rohilkhand State Ry.	24-11-86	3' 3 1/2"	1179' 60	...	...	...	...	...	...	...	...	
4 (e)	Cooch Behar	C. B.	Eastern Bengal State Ry.	15-8-83	2' 6"	...	...	...	...	...	...	33' 60	...	...	
<b>D.</b>															
9 (b)	Dandot Light	D. L.	North Western State Ry.	5-7-88	2' 0"	618	...	...	...	...	...	...	...	...	
9 (e)	Darjeeling-Himalayan-§§	D. H.	Darjeeling-Himalayan Ry. Co.	23-8-80	2' 0"	...	...	...	51' 00	...	...	...	...	...	
1 (b)	Delhi-Umballa-Kalka.¶¶	D. U. K.	East India Ry. Co.	1-3-91	5' 6"	...	...	...	163' 26	...	...	...	...	...	
1 (e)	Deoghur†	D.	Deoghur Ry. Co.	23-12-82	3' 3 1/2"	...	...	...	4' 70	...	...	...	...	...	
						Carried over	85' 78	3,918' 81	583' 73	1,312' 26	...	870' 54	341' 10	33' 60	...

\* Branch line company assisted under "Rebate terms."  
† Receiving land only from the Government of India.  
‡ Although for convenience classed amongst State lines, this line is the property of the Bengal Central Railway Company.  
§ Subsidized by the District Board.  
|| Includes 5'23 miles of Dock estate and quarry lines.  
¶ Guaranteed under terms of the old contracts.  
\*\* Includes the Viramgam-Wadhwan section, 3' 3 1/2" gauge.  
†† Guaranteed under terms of modern contracts.  
‡‡ Excludes 3' 66 miles of the Lucknow-Bareilly railway, between Aishberg and Daligan, worked over, but includes 16' 79 miles of mixed (5' 6" and 3' 3 1/2") gauge mileage.  
§§ Subsidized by the Local Government.  
¶¶ Subsidized by the Government of India.

APPENDIX 1—contd.

Appendix 1.  
List of Railways.

List of open lines of Railway at the close of the Calendar year 1903  
alphabetically arranged, with their lengths,  
the administrations by which worked, gauge and classification.

(Referred to in paragraph 3 of Report.)

Notes.—For particulars of railways comprising each railway system, and of mileage laid with more than one track, see Appendix 39.  
For mileage added from 1st January 1903 to 30th April 1904, see Appendix 2.  
For total mileage opened during and at the end of each year and the total mileage opened during the Viceroyalty of each Governor General, see Appendix 3.  
For mileage of individual railways opened each year, from the commencement, see Appendix 38.  
For mileage under construction or sanctioned, see Appendix 4.

No.	Name of Railway.	Letters used to denote names of railways.	Railway administration by which worked.	Date of first opening of any portion for traffic.	Gauge.	LENGTH OF RAILWAY, IN MILES, OPEN ON 31st DECEMBER 1903, UNDER SEVERAL HEADS OF CLASSIFICATION.							Lines in foreign territory.	REMARKS.	
						State lines worked by agency of		Guaranteed railway.	Assisted railway.	Un-assisted railway.	Lines owned by Native States and worked by agency of				
						State railway.	Company.				Native State itself.	Company.			State railway.
	<b>D—contd.</b>			Brought forward		8578	3,918'51	563'72	1,312'85	...	879'54	941'10	33'60	...	
(d)	Dhruvadra . . . .	D. H. R.	Bhavnagar-Gondal-Junagad-Forbandar Ry.	1-6-00	3' 3 1/2"	—	—	—	—	—	20'63	—	—	—	
(e)	Dibru-Sadiya* . . . .	D. B.	Assam Railways and Trading Co.	Aug. 03	3' 3 1/2"	—	—	—	77'50	—	—	—	—	—	
	<b>E.</b>														
	<b>Eastern Bengal State—</b>														
(a)	Southern and Eastern sections.	E. B. S.	Eastern Bengal State Ry.	2-1-03	5' 6"	278'08	—	—	—	—	—	—	—	—	
(b)	Northern, Behar and Kaimi-Dhubri sections.	E. B. S. M.		23-9-77	3' 3 1/2"	408'40	—	—	—	—	—	—	—	—	
(c)	Toesta-Kurigram branch and British section, Santrabari extension.	E. B. S. M.		19-7-01	2' 6"	34'78	—	—	—	—	—	—	—	—	
	Dacca section . . . .			4-1-05	3' 3 1/2"	85'02	—	—	—	—	—	—	—	—	
(a)	East Indian . . . .	E. I.	East Indian Ry. Co.	15-9-84	5' 6"	—	1,935'11	—	—	—	—	—	—	—	
	<b>G.</b>														
(a)	Gaskwar's Dabhol . . . .	G. D.	Bombay, Baroda and Central India Ry. Co.	9-4-78	2' 6"	—	—	—	—	—	—	68'00	—	—	
(b)	Gaskwar's Mehsana . . . .	G. M.		21-3-07	3' 3 1/2"	—	—	—	—	—	—	62'63	—	—	
(c)	Godhra-Buliam-Nagda . . . .	G. E. N.		16-1-03	5' 6"	—	141'14	—	—	—	—	—	—	—	
(a)	Great Indian Peninsula . . . .	G. I. P.	Great Indian Peninsula Ry. Co.	19-4-83	5' 6"	—	1,561'63	—	—	—	—	—	—	—	
(c)	Guntakal-Mysore Frontier.	G. M. F.	Southern Mahratta Ry. Co.	1-3-02	3' 3 1/2"	—	119'50	—	—	—	—	—	—	—	
(f)	Gwalior Light . . . .	G. L.	Great Indian Peninsula Ry. Co.	2-12-00	2' 0"	—	—	—	—	—	—	126'14	—	—	
	<b>H.</b>														
(b)	Hardwar-Dehra† . . . .	H. D.	Oudh and Rohilkhand State Ry.	1-3-00	5' 6"	—	—	32'04	—	—	—	—	—	—	
(d)	Hindupur (Yesvantpur-Mysore Frontier).	H.	Southern Mahratta Ry. Co.	15-12-02	3' 3 1/2"	—	—	—	—	—	—	81'35	—	—	
(e)	Howrah-Amta Light†. . . .	H. A.	Howrah-Amta Light Ry. Co.	1-7-07	2' 0"	—	—	—	28'09	—	—	—	—	—	
(e)	Howrah-Sheakhala Light.†	H. S.	Howrah-Sheakhala Light Ry. Co.	2-9-07	2' 0"	—	—	—	19'75	—	—	—	—	—	
(e)	Hyderabad-Godavari Valley.	H. G. V.	Nizam's Guaranteed State Ry. Co.	21-10-09	3' 3 1/2"	—	—	—	—	—	—	391'48	—	—	
	<b>I.</b>														
(e)	Indian Midland . . . .	I. M.	Great Indian Peninsula Ry. Co.	10-1-78	5' 6"	—	805'03	—	—	—	—	—	—	—	
	Carried over . . . .					983'65	3,480'92	695'78	1,435'30	...	600'37	1,000'64	33'60	...	

\* Subsidized by the Local Government.  
† Guaranteed under terms of modern contracts.

Appendix 1.  
List of Railways.

APPENDIX 1—contd.

List of open lines of Railway at the close of the Calendar year 1903  
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						State lines worked by agency of		Guaranteed railway.	Assisted railway.	Un-assisted railway.	Lines owned by Native States and worked by agency of			Lines in foreign territory.		
						State railway.	Company.				Native State itself.	Company.	State railway.			
	<b>J.</b>			Brought forward		983.65	8,490.93	595.76	1,438.30	...	600.37	1,090.64	33.60	...		
9	(b) Jammu and Kashmir (Native state section).*	J. K.	North Western State Ry.	18-3-00	5' 6"	...	...	...	...	...	...	...	15.92	...		
14	(c) Jamnagar . . . . .	J. N.	Bhavnagar-Gondal-Jamnagar-Forbandar Ry.	2-4-07	3' 3 1/2"	...	...	...	...	...	154.22	...	...	...		
14	(d) Jaisalmer-Rajkot . . . . .	J. R.		19-4-03	3' 3 1/2"	...	...	...	...	...	...	46.21	...	...	...	
19	(e) Jodhpur . . . . .	J. B.	Jodhpur-Bikaner Ry. .	24-6-03	3' 3 1/2"	...	...	...	...	...	454.94	...	...	...		
18	(f) Jodhpur-Hyderabad (British section).†	J. H.	Jodhpur-Bikaner Ry. .	18-8-02	3' 3 1/2"	...	123.83	...	...	...	...	...	...	...		
20	(g) Jorhat . . . . .	J.	Jorhat State Ry. . . .	15-12-94	2' 0"	30.25	...	...	...	...	...	...	...	...		
2	(h) Jubbalpore-Gondia Extension.	J. G. E.	Bengal-Nagpur Ry. Co.	18-4-03	2' 6"	...	76.86	...	...	...	...	...	...	...		
	<b>K.</b>															
28	(a) Kalka-Simla‡ . . . . .	K. S.	Delhi-Umballa-Kalka Ry. Co.	9-11-03	2' 6"	...	...	59.44	...	...	...	...	...	...		
20	(b) Karaikal-Peralam . . . . .	K. P.	South Indian Ry. Co. .	14-3-03	3' 3 1/2"	...	...	...	...	...	...	...	...	14.65		
9	(c) Kharakpur-Kohat Thal.	K. K. T.	North Western State Ry.	25-5-03	3' 6"	91.73	...	...	...	...	...	...	...	...		
7	(d) Kolar Gold-fields . . . . .	K. G.	Madras Ry. Co. . . . .	1-3-94	5' 6"	...	...	...	...	...	...	9.83	...	...		
21	(e) Kolhapur . . . . .	K. L.	Southern Mahratta Ry. Co.	21-4-01	3' 3 1/2"	...	...	...	...	...	...	23.27	...	...		
	<b>L.</b>															
17	(a) Ledo and Tikak-Margherita Colliery.	L. T.	Assam Railways and Trading Co.	17-2-04	3' 3 1/2"	...	...	...	...	11.00	...	...	...	...		
19	(b) Lucknow-Bareilly . . . . .	L. B.	Rohilkhand and Kumaon Ry. Co.	12-10-94	3' 3 1/2"	...	237.04	...	...	...	...	...	...	...		
9	(c) Ludhiana-Dhuri-Jakhal	L. D. J.	North Western State Ry.	10-4-01	5' 6"	...	...	...	...	...	...	...	78.08	...		
	<b>M.</b>															
7	(a) Madras‡ . . . . .	M.	Madras Ry. Co. . . . .	1-7-94	5' 6"	...	...	800.31	...	...	...	...	...	...		
7	(b) Madras (North-East line).	M. N. E.	Madras Ry. Co. . . . .	26-2-03	5' 6"	...	1,407.19	...	...	...	...	...	...	...		
20	(c) Morvi . . . . .	M. R. W.	Morvi Ry. . . . .	11-3-96	2' 6"	...	...	...	...	...	94.39	...	...	...		
4	(d) Mysore-Jamalpur Jagannathganj.**	M. J. J.	Eastern Bengal State Ry.	15-10-03	3' 3 1/2"	...	...	...	52.70	...	...	...	...	...		
21	(e) Mysore-Nanjangud . . . . .	M. N.	Southern Mahratta Ry. Co.	1-12-01	3' 3 1/2"	...	...	...	...	...	...	15.60	...	...		
21	(f) Mysore section (Southern Mahratta).	M. S.	Southern Mahratta Ry. Co.	1-2-01	3' 3 1/2"	...	290.23	...	...	...	...	...	...	...		
	<b>N.</b>															
3	(a) Nagda-Ujjain . . . . .	N. U.	Bombay, Baroda and Central India Ry. Co.	15-7-03	5' 6"	...	...	...	...	...	...	34.23	...	...		
7	(b) Nilgiri . . . . .	N.	Madras Ry. Co. . . . .	18-3-00	3' 3 1/2"	...	16.00	...	...	...	...	...	...	...		
8	(c) Nizam's Guaranteed State.	N. G. S.	Nizam's Guaranteed State Ry. Co.	9-10-74	5' 6"	...	...	...	...	...	...	330.13	...	...		
11	(d) Noakhali (Bengal)** . . . . .	N. B.	Assam-Bengal Ry. Co. .	15-5-03	3' 3 1/2"	...	...	...	34.90	...	...	...	...	...		
9	(e) North Western State . . . . .	N. W.	North Western State Ry.	13-5-01	5' 6"	3,123.76	...	...	...	...	...	...	...	...		
9	(f) Nowshera-Durgai . . . . .	N. D.	North Western State Ry.	1-1-01	2' 6"	40.25	...	...	...	...	...	...	...	...		
	<b>O.</b>															
10	(a) Oudh and Rohilkhand State.	O. & R.	Oudh and Rohilkhand State Ry.	23-4-07	5' 6"	11	1,101.19	...	...	...	...	...	...	...		
				Carried over		5,370.63	9,729.26	1,495.67	1,585.34	11.00	1,250.10	1,510.04	123.18	14.65		

\* The British section of this railway forms an integral portion of the North Western State railway.  
† Includes 3.93 miles of Dock estate lines.  
‡ The Native State section of this railway forms an integral portion of the Jodhpur section of the Jodhpur-Bikaner railway.  
§ Receiving land only from the Government of India.  
¶ Guaranteed under terms of the old contracts.  
\*\* Includes 2.66 miles of mixed (5' 6" and 3' 3 1/2") gauge between Barwada and Kistna Block hut and 0.21 mile of 3' 3 1/2" gauge between Kistna Block hut and Tadepalli.  
\*\*\* Branch line company assisted under "Rebate terms".  
†† Includes 5.63 miles of military lines not used for public traffic and 28.28 miles of mixed (5' 6" and 3' 3 1/2") gauge line between Bhatinda and Kot Kapura, over which the Rajputana-Malwa railway trains also work.  
‡‡ Includes 16.79 miles of mixed (5' 6" and 3' 3 1/2") gauge line from Burkwal to Bara Banki and 0.89 mile on the Cawnpore Bridge and 1.81 mile on the 3' 3 1/2" gauge between the Oudh and Rohilkhand State railway cantonment and the Bengal and North-Western railway city station at Benares.

APPENDIX 1—concl'd.

Appendix 1.  
List of Railways.

List of open lines of Railway at the close of the Calendar year 1903  
alphabetically arranged, with their lengths,  
the administrations by which worked, gauge and classification.

(Referred to in paragraph 2 of Report.)

NOTE.—For particulars of railways comprising each railway system, and of mileage laid with more than one track, see Appendix 3.  
For mileage added from 1st January 1903 to 30th April 1904, see Appendix 2.  
For total mileage opened during and at the end of each year, and the total mileage opened during the Viceroyalty of each Governor General, see Appendix 3.  
For mileage of individual railways opened each year from the commencement, see Appendix 3.  
For mileage under construction or sanctioned, see Appendix 4.

YEAR.	NAME OF RAILWAY.	Letters used to denote name of railway.	Railway administration by which worked.	Date of first opening of any portion for traffic.	Gauge.	LENGTH OF RAILWAY, IN MILES, OPEN ON 31st DECEMBER 1903, UNDER SEVERAL HEADS OF CLASSIFICATION.										REMARKS.
						State lines worked by agency of		Guaranteed railway.	Assisted railway.	Un-assisted railway.	Lines owned by Native States and worked by agency of			Lines in foreign territory.		
						State railway.	Company.				Native State itself.	Company.	State railway.			
				Brought forward.		6,370'83	9,728'29	1,495'67	1,685'36	11'00	1,250'10	1,510'04	128'18	14'65		
	<b>P.</b>															
3	(j) Palanpur-Deesa . . . . .	P. D.	Bombay, Baroda and Central India Ry. Co.	8-11-93	3' 3 1/2"	---	17'28	---	---	---	---	---	---	---	---	
2	(e) Parikramedi Light . . . . .	P. L. L.	Bombay, Baroda and Central India Ry. Co.	1-4-00	2' 6"	---	---	---	---	---	---	24'62	---	---	---	
3	(d) Petlad-Cambay (Aband-Tarapur section).	P. C. A.	Bombay, Baroda and Central India Ry. Co.	5-5-90	5' 6"	---	---	---	---	---	---	31'50	---	---	---	
3	(e) Petlad-Cambay (Tarapur-Cambay section).	P. C. T.		20-6-01	5' 6"	---	---	---	---	---	---	---	10'22	---	---	---
20	(e) Pondicherry . . . . .	P.	South Indian Ry. Co.	15-12-79	3' 3 1/2"	---	---	---	---	---	---	---	---	---	7'85	
19	(e) Powayan Light* . . . . .	P. W. L.	Rohilkund and Kumaon Ry. Co.	17-6-90	2' 6"	---	---	---	39'50	---	---	---	---	---	---	
	<b>R.</b>															
2	(d) Rajpur-Dhantari . . . . .	R. D.	Bengal-Nagpur Ry. Co.	10-6-00	2' 6"	---	56'24	---	---	---	---	---	---	---	---	
2	(e) Rajpura . . . . .	R.	Bombay, Baroda and Central India Ry. Co.	1-7-97	2' 6"	---	---	---	---	---	---	37'37	---	---	---	
9	(d) Rajpura-Bhatinda . . . . .	R. B.	North Western State Ry.	1-11-94	5' 6"	---	---	---	---	---	---	---	107'06	---	---	
3	(d) Rajputana-Malwa . . . . .	R. M.	Bombay, Baroda and Central India Ry. Co.	14-2-73	3' 3 1/2"	---	1,649'30	---	---	---	---	---	---	---	---	
21	(e) Ranaghat-Krishnagar Light.†	R. K. L.	Ranaghat-Krishnagar Light Ry. Co.	5-4-99	2' 6"	---	---	---	20'35	---	---	---	---	---	---	
19	(e) Rohilkund and Kumaon.‡	R. & K.	Rohilkund and Kumaon Ry. Co.	12-10-94	3' 3 1/2"	---	---	---	53'32	---	---	---	---	---	---	
	<b>S.</b>															
12	(d) Saganli-Barauli* . . . . .	S. B.	Bengal and North-Western Ry. Co.	1-3-99	3' 3 1/2"	---	---	---	18'00	---	---	---	---	---	---	
7	(e) Shoranur-Cochin . . . . .	S. C.	Madras Ry. Co.	2-6-02	3' 3 1/2"	---	---	---	---	---	---	64'75	---	---	---	
5	(e) South Bihar‡ . . . . .	S. B.	East Indian Ry. Co.	5-7-99	5' 6"	---	---	---	78'78	---	---	---	---	---	---	
20	(e) South Indian . . . . .	S. I.	South Indian Ry. Co.	15-7-61	3' 3 1/2"	---	1,123'13	---	---	---	---	---	---	---	---	
21	(e) Southern Mahratta . . . . .	S. M.	Southern Mahratta Ry. Co.	24-3-94	3' 3 1/2"	---	1,042'04	---	---	---	---	---	---	---	---	
9	(e) Southern Punjab‡ . . . . .	S. P.	North Western State Ry.	10-11-97	5' 6"	---	---	---	416'33	---	---	---	---	---	---	
	<b>T.</b>															
20	(d) Tanjore District Board	T. D. B.	South Indian Ry. Co.	2-4-94	3' 3 1/2"	---	---	---	89'46	---	---	---	---	---	---	
3	(j) Tepti Valley‡ . . . . .	T. V.	Bombay, Baroda and Central India Ry. Co.	1-12-98	5' 6"	---	---	---	155'48	---	---	---	---	---	---	
23	(e) Tarakeswar-Magra Light.	B. P.	Bengal Provincial Light Ry. Co.	7-11-94	2' 6"	---	---	---	---	31'12	---	---	---	---	---	
5	(d) Tarkesur* . . . . .	T.	East Indian Ry. Co.	1-1-95	5' 6"	---	---	---	22'23	---	---	---	---	---	---	
24	(e) Tarpore-Balipara Light‡	T. B.	Tarpore-Balipara Light Ry. Co.	9-9-94	2' 6"	---	---	---	20'10	---	---	---	---	---	---	
26	(e) Thalton-Doyinsalk Light.‡	T. D.	Thalton-Doyinsalk Light Ry. Co.	11-2-95	2' 6"	---	---	---	7'76	---	---	---	---	---	---	
20	(e) Tinnevelly-Quilon (Travancore) (British section).	T. Q. B.	South Indian Ry. Co.	1-6-02	3' 3 1/2"	---	49'50	---	---	---	---	---	---	---	---	
20	(j) Tinnevelly-Quilon (Travancore) (Native state section).	T. Q. N.		1-6-03	3' 3 1/2"	---	---	---	---	---	---	---	0'43	---	---	---
12	(e) Tirhoot state . . . . .	T. S.	Bengal and North-Western Ry. Co.	1-11-75	5' 3 1/2"	---	516'89	---	---	---	---	---	---	---	---	
	<b>U.</b>															
13	(e) Udaiपुर-Chitor . . . . .	U. C.	Udaiपुर-Chitor Ry.	1-8-95	3' 3 1/2"	---	---	---	---	---	67'30	---	---	---	---	
	<b>V.</b>															
3	(d) Vijaipur-Kalot-Kadi . . . . .	V. K. K.	Bombay, Baroda and Central India Ry. Co.	10-6-02	3' 3 1/2"	---	---	---	---	---	---	41'37	---	---	---	
	<b>W.</b>															
21	(A) West of India Portuguese.	W. I. P.	Southern Mahratta Ry. Co.	17-1-97	3' 3 1/2"	---	---	---	---	---	---	---	---	51'11	---	
Total mileage of railways open in India and Burma on the 31st December 1903.						5' 6"	4,503'83	8,781'28	1,496'30	844'16	---	---	709'38	201'63	---	
						3' 3 1/2"	664'01	7,269'22	50'37	1,393'48	11'00	1,223'04	724'94	---	73'61	
						2' 6"	168'78	133'18	---	187'14	31'12	94'36	149'98	33'80	---	
						2' 0"	36'43	---	---	90'44	---	125'14	---	---	---	
						Total...	6,370'83	14,183'67	1,496'67	2,326'23	42'12	1,317'40	1,711'00	336'23	73'61	

\* Receiving land only from the Government of India.  
† Includes 210 miles, 3'07 miles and 0'94 mile laid on the 5' 6" gauge at Ujjain, between Agra cantonment and Agra East Bank stations and from Lahori Gate cable to Brewery cabin at Delhi, respectively, and 26'28 miles of mixed (5' 6" and 3' 3 1/2") gauge mileage between Bhatinda and Kot Kapura over which the North Western State railway trains also work.  
‡ Subsidized by the District Board.  
§ Subsidized by the Government of India.  
¶ Branch line company assisted under "Rebate terms."  
‡ Subsidized by the Local Government.



**Appendix 2.**  
Additions to mileage.

**APPENDIX 2.**  
(Appendix 3 in Report for 1902.)

*Mileage added to the Railway System of India  
during the Calendar year 1903 and the  
four months following.*

(Referred to in paragraph 8 of Report.)

NOTE.—For references to the several mileage statements, see notes at head of Appendix 1.

NUMBRS.	Railway administration to which railway has been added.	Name of owning railway.	Section of line added during 1903.	Date of opening for traffic.	ADDITIONS, IN MILES, MADE TO OPEN MILEAGE DURING 1903.								
					Length.				Total mileage added to railway administration.				
Main head.	Sub-head.				5' 6"	3' 3 1/2"	2' 6"	2' 0"	5' 6"	3' 3 1/2"	2' 6"	2' 0"	
8	(a)	Bengal-Nagpur	Bengal-Nagpur.	Midnapore to Bhojudih . . . . .	1st February . . . . .	114.50	...	...	...				
				Bhojudih to Bhaga . . . . .	20th April . . . . .	6.66	...	...	...				
3	(a)	Bombay, Baroda and Central India.	Bombay, Baroda and Central India.	Bhaga to Malkera . . . . .	1st September . . . . .	8.79	...	...	...				
				Chaurashi branch . . . . .	1st February . . . . .	8.16	...	...	...				
4	(a)	Eastern Bengal	Eastern Bengal	Bhowra branch . . . . .	14th May . . . . .	1.95	...	...	...				
				Jubbulpore-Gondia Extension.	18th April . . . . .	...	...	76.95	...	140.06	...	76.95	...
3	(a)	Bombay, Baroda and Central India.	Bombay, Baroda and Central India.	Godhra to Baroda . . . . .	23rd December . . . . .	43.67	...	...	...				
				Ahmedabad-Dholka.	28rd February . . . . .	...	24.75	...	...				
4	(a)	Eastern Bengal	Eastern Bengal	Bavla to Dholka . . . . .	1st April . . . . .	...	8.75	...	...				
				Vijapur-Kalol-Kadi.	18th July . . . . .	...	11.93	...	...				
5	(a)	East Indian	East Indian	Gaekwar's Dabhoi.	10th July . . . . .	...	...	9.20	...	43.67	45.43	9.20	...
				Extension of Chitpore terminus.	1st March . . . . .	0.68	...	...	...	1.66	...	...	...
6	(a)	Great Indian Peninsula.	Indian Midland	Katrasgarh to Khanoodih	7th March . . . . .	7.23	...	...	...				
				Northern sec., Malkera-Katrasgarh cross connection.	15th August . . . . .	0.67	...	...	...				
7	(a)	Madras	Madras	Dhanbaid to Jharia . . . . .	1st May . . . . .	3.79	...	...	...	11.69	...	...	...
				Ait to Kuzh . . . . .	7th December . . . . .	8.50	...	...	...	8.50	...	...	...
9	(a)	North Western State.	North Western State.	Tellicherry to Cannanore	20th May . . . . .	11.82	...	...	...	11.82	...	...	...
				Malakwal to Sargoda . . . . .	1st April . . . . .	46.25	...	...	...				
10	(a)	Oudh and Rohilkhand State.	Oudh and Rohilkhand State.	Kohat to Thal . . . . .	1st April . . . . .	...	...	62.08	...	46.25	...	62.08	...
				Partabgarh to Siwait . . . . .	20th March . . . . .	24.98	...	...	...				
11	(a)	Assam-Bengal	Assam-Bengal	Chilbila to Sultampur . . . . .	10th April . . . . .	22.07	...	...	...	61.55	...	...	...
				Balaman to Madhoganj . . . . .	20th December . . . . .	14.50	...	...	...				
12	(a)	Bengal and North-Western.	Bengal and North-Western.	Lakwa to Bhojo . . . . .	1st February . . . . .	...	12.72	...	...				
				Bhojo to Tinsukia . . . . .	1st March . . . . .	...	41.94	...	...				
13	(b)	Bengal Doocars	Bengal Doocars Extensions.	Damchura to Lumding . . . . .	1st December . . . . .	...	96.70	...	...				
				Noakhali (Bengal).	15th May . . . . .	...	30.46	...	...				
14	(b)	Bengal Doocars	Bengal Doocars Extensions.	Noakhali to Saheb Ghatta	10th November . . . . .	...	4.44	...	...	186.26	...	...	...
				Phephna to Ghazipur Ghat	11th March . . . . .	...	31.16	...	...				
15	(a)	Burma	Burma	Azamgarh to Shahganj . . . . .	14th February . . . . .	...	34.81	...	...	65.97	...	...	...
				Chalsa to Chengmari . . . . .	1st January . . . . .	...	13.45	...	...				
16	(a)	Burma	Burma	Chengmari to Dalgaon . . . . .	23rd March . . . . .	...	15.84	...	...				
				Dalgaon to Madarihat . . . . .	14th June . . . . .	...	9.31	...	...				
17	(a)	Burmah	Burmah	Hisipaw to Lesbio . . . . .	1st March . . . . .	...	30.94	...	...	38.60	...	...	...
				Letpadan to Tharawaw . . . . .	20th March . . . . .	...	23.07	...	...				
18	(b)	Rohilkund and Kumaon.	Lucknow-Barcilly.	Henzada to Henzada Shore	20th March . . . . .	...	2.46	...	...	76.47	...	...	...
				Dudhwa to Chandan Choki	4th April . . . . .	...	5.87	...	...				
19	(d)	South Indian	Tanjore District Board.	Pattukkottai to Arantangi . . . . .	31st December . . . . .	...	28.35	...	...				
				Tinnevely-Quilon (Travancore) (Br. sec.)	1st August . . . . .	...	30.45	...	...				
20	(f)	South Indian	Tinnevely-Quilon (Travancore) (Native state sec.)	.....	1st August . . . . .	...	0.43	...	...	59.23	...	...	...
5	(a)	Bukhtiarpore-Behar Light.	Bukhtiarpore-Behar Light.	Bukhtiarpore to Behar . . . . .	1st July . . . . .	...	...	18.50	...	...	18.50	...	
8	(a)	Kalka-Simla	Kalka-Simla	Kalka to Simla . . . . .	9th November . . . . .	...	...	59.44	...	...	59.44	...	
Total mileage added during 1903										325.20	477.83	226.12	...
MILEAGE ADDED FROM THE 1st JANUARY TO THE 31st MARCH 1904.													
2	(a)	Bengal-Nagpur	Bengal-Nagpur	Bauria to Fort Gloster . . . . .	12th February . . . . .	2.00	...	...	...				
				Jubbulpore-Gondia Extension.	12th February . . . . .	...	...	47.26	...	2.00	...	47.26	...
3	(f)	Great Indian Peninsula.	Gwalior Light	Gwalior to Jaura . . . . .	1st January . . . . .	...	...	...	81.34	...	...	31.34	
7	(a)	Madras	Madras	Cannanore to Azhikal . . . . .	15th March . . . . .	3.90	...	...	...	3.90	...	...	...
				Oudh and Rohilkhand State.	1st February . . . . .	36.37	...	...	...				
8	(a)	Bengal and North-Western.	Bengal and North-Western.	Siwait to Phaphaman . . . . .	20th January . . . . .	3.63	...	...	...	40.00	...	...	...
				Kopaganj to Dohright . . . . .	21st March . . . . .	...	21.70	...	...				
				Aunrihar to Jaunpur City . . . . .	21st March . . . . .	...	36.14	...	...	57.84	...	...	...
Total mileage added from 1st January to 31st March 1904										45.90	57.84	47.26	81.34
MILEAGE ADDED FROM 1st TO 30th APRIL 1904.													
1	(a)	Bengal Provincial Light.	Tarakshwar-Magra.	Magra to Tribeni . . . . .	14th April . . . . .	...	...	2.15	...	...	2.15	...	
GRAND TOTAL MILEAGE OPEN ON 30th APRIL 1904										14,522.81	11,479.51	845.57	293.35

## APPENDIX 3.

Appendix 3.  
Mileage open yearly.

(Appendix 4 in Report for 1902.)

*Total Railway mileage opened for traffic during, and at the end of each year, and the total mileage opened during the Viceroyalty of each Governor General.*NOTES.—For mileage of individual railways opened each year from commencement, see Appendix 28.  
For references to the several mileage statements, see notes at head of Appendix 1.

CALENDAR YEAR.	Total actual mileage opened during the year.	Deduct corrections, abandonments, etc., of mileage.	Net mileage added during the year.	Total mileage open for traffic at close of the year.	Total mileage opened during Viceroyalty.	Viceroy.
1853	20	..	20	20	169	Marquis of Dalhousie.
1854	50	+1	51	71		
1855	99	-1	98	169		
1856	103	..	103	272	1,418	Earl Canning.
1857	15	..	15	287		
1858	140	..	140	427		
1859	198	..	198	625		
1860	212	+1	213	839		
1861	748	+1	749	1,587		
1862	746	..	746	2,333	920	Earl of Elgin.
1863	174	..	174	2,507		
1864	451	..	451	2,958	1,501	Lord Lawrence.
1865	405	..	405	3,363		
1866	200	..	200	3,563		
1867	367	-1	366	3,929		
1868	78	+1	79	4,008		
1869	248	-1	247	4,255	1,068	Earl of Mayo.
1870	516	..	516	4,771		
1871	302	+1	303	5,074		
1872	303	-8	295	5,369	1,467	Lord Northbrook.
1873	327	+1	328	5,697		
1874	477	+52	529	6,226		
1875	366	-51	315	6,541		
1876	319	..	319	6,860	2,621	Lord Lytton.
1877	460	..	460	7,320		
1878	898	+1	899	8,219		
1879	269	+6	275	8,494		
1880	668	..	668	9,162		
1881	728	..	728	9,890	2,469	Marquis of Ripon.
1882	252	+7	259	10,149		
1883	359	-50	309	10,458		
1884	1,190	-17	1,173	11,631		
1885	651	+1	652	12,283	2,945	Earl of Dufferin and Ava.
1886	643	-34	609	12,892		
1887	1,212	-1	1,211	14,103		
1888	482	-9	473	14,576		
1889	1,326	-15	1,311	15,887	3,928	Marquis of Lansdowne.
1890	515	-1	514	16,401		
1891	997	-90	907	17,308		
1892	504	+3	507	17,815		
1893	669	..	669	18,504		
1894	409	-13	396	18,900	3,538	Earl of Elgin.
1895	657	-10	647	19,547		
1896	706	+1	707	20,254		
1897	845	+13	861	21,115		
1898	898	+27	925	22,040		
1899	1,484	-1	1,483	23,523	4,916	Lord Curzon.
1900	1,237	-8	1,229	24,752		
1901	578	+35	611	25,363		
1902	566	+2	568	25,931		
1903	1,029	-1	1,028	26,959		
					26,958	

Appendix 4.  
Miles under construction.

## APPENDIX 4.

(Appendix 5 in Report for 1902.)

Mileage under construction or sanctioned at the close of the Calendar year 1903 with additions to the 30th April 1904.

[Referred to in paragraphs 4 and 5 of Report.]

NOTE.—For references to the several mileage statements, see notes at head of Appendix 1.

NUMBER.		Railway administration by which being constructed.	Name of owning Railway.	Classification.	Section of line, the construction of which has been sanctioned.	Date construction was sanctioned.	MILEAGE SANCTIONED AND STILL REMAINING TO BE CONSTRUCTED.				REMARKS.
Main head.	Sub-head.						1 <sup>st</sup> 6 <sup>th</sup>	2 <sup>nd</sup> 6 <sup>th</sup>	3 <sup>rd</sup> 6 <sup>th</sup>	4 <sup>th</sup> 6 <sup>th</sup>	
2	(a)	Bengal-Nagpur.	Bengal-Nagpur.	State line worked by company.	Bhojudih to Hari-harpur.	1st November 1901.	26'96	...	...	...	Work commenced.
					Bhojudih to Parthadihi.	1st November 1901.	8'28	...	...	...	Work commenced.
					Malkera to Mohnda.	1st November 1901.	8'40	...	...	...	Work commenced.
					Junction with Santoria branch to Akh.	20th December 1903.	2'47	...	...	...	Work commenced.
					Southern half of the Malkera-Katragarh cross connection.	1st November 1901.	0'71	...	...	...	Work commenced.
	(b)	Bengal-Nagpur.	Jubbulpore-Gondia Extension.	State line worked by company.	Bauria to Fort Gloster.	25th June 1900.	3'00	...	...	...	Since opened.
					Jamadhoba to Balliary.	24th June 1903.	5'50	...	...	...	Work commenced.
					Jubbulpore to Nainpur.	23rd January 1901.	...	...	68'01	...	Work commenced.
					Nainpur to Mandla.	23rd January 1901.	...	...	22'37	...	Not commenced.
					Nainpur to Chindwara.	23rd January 1901.	...	...	37'49	...	Portion since opened.
(c)		Moharbhaj <sup>*</sup>	Native state line worked by company.	Baripada Road station to Baripada.	18th July 1903.	...	...	39'10	...	Work commenced.	
(d)				Total	...	43'32	...	210'27	...		
3	(a)	Bombay, Baroda and Central India.	Rajputana-Malwa.	State line worked by company.	Rewari to Phulera.	20th December 1901.	...	133'32	...	...	Work commenced.
			Gaekwar's Dabhol.	Native state line worked by company.	Mobha to Kanjat...	24th January 1903.	...	...	6'40	...	Work commenced.
	(b)		Jaipur (Siwai-Madhapur).	Native state line worked by company.	Sanganer to Siwai Madhopur.	2nd December 1897.	...	72'85	...	...	Completion deferred for want of funds.
	Total	...	...	206'17	6'49	...					
4	(a)	Eastern Bengal State.	State line worked by the State.	Panchooria to the river Ganges.	12th February 1896.	6'00	...	...	...	Constructed, but not worked.	
				Kankargachi chord	19th February 1902.	2'25	...	...	...	Work commenced.	
				Banshat to Murahidabad.	20th June 1902.	75'00	...	...	...	Work commenced.	
	(c)	Eastern Bengal State.	State line worked by the State.	Murahidabad to Jeaganj.	23rd September 1903.	6'00	...	...	...	Work commenced.	
				Jeaganj to Lalgola.	23rd September 1903.	18'50	...	...	...	Work commenced.	
				Golokganj to the Brahmaputra opposite Gauhati.	31st October 1902.	...	151'62	...	...	Work commenced.	
				Kannia to Bonarpara.	17th July 1903.	...	44'25	...	...	Work commenced.	
Total	...	105'75	195'37	...	...						
Carried over	...	149'07	402'04	216'76	...						

\* Question of working agency not yet finally settled.

## APPENDIX 4—contd.

Appendix 4.  
Miles under construction.

(Appendix 5 in Report for 1902.)

Mileage under construction or sanctioned at the close of the Calendar year 1903, with additions to the 30th April 1904.

(Referred to in paragraphs 4 and 5 of Report.)

NOTE.—For references to the several mileage statements, see notes at head of Appendix 1.

NUMBER.		Railway administration by which being constructed.	Name of owning Railway.	Classification.	Section of line, the construction of which has been sanctioned.	Date construction was sanctioned.	MILEAGE SANCTIONED AND STILL REMAINING TO BE CONSTRUCTED.				REMARKS.		
Line no.	Sub-head.						5' 6"	3' 3"	2' 6"	2' 0"			
					Brought forward	...	149-07	402-04	216-76	...			
					Shikohabad to Farukhabad.	13th January 1898.	65-32	...	...	...	Work commenced.		
					Tara siding.	1st November 1901.	1-75	...	...	...	Work commenced.		
					Mile 170½ from Howrah on the Jharis branch to Chandore.	17th March 1903.	4-16	...	...	...	Work commenced.		
5	(a)	East Indian	East Indian	State line worked by company.	Manpur to 0-87 mile beyond Gurpa.	25th March 1902.	25-25	...	...	...	Work commenced.		
					Mile 0-87 beyond Gurpa to Kodarma.	20th June 1902.	16-19	...	...	...	Work commenced.		
					Kodarma to Haziharpur.	20th June 1902.	56-35	...	...	...	Work commenced.		
					Ondal to Sainthia.	1st December 1903.	43-63	...	...	...	Work commenced.		
					Total		215-14	...	...	...			
6	(f)	Great Indian Peninsula.	Gwalior Light	Native state line worked by company.	Gwalior to Sabulgarh.	2nd October 1901.	...	...	...	57-86	Portion since opened.		
	(g)		Agra-Delhi Chord.	State line worked by company.	Agra to Delhi.	15th September 1898.	120-10	...	...	...	...	Work commenced.	
					Total		120-10	...	...	57-86			
	(a)	Madras	Madras	Guaranteed under terms of the old contracts.	Cannanore to Azhikal.	6th May 1897	3-30	...	...	...	Since opened.		
	(e)		Madras (North-East line).	State line worked by company.	Korakkupetta to Basin Road.	11th April 1901.	0-33	...	...	...	...	Work commenced.	
	(d)		Nilgiri		Coonoor to Ootacamund.	6th November 1903.	...	11-50	...	...	...	Not commenced.	
7	(f)		Azhikal-Mangalore.		Azhikal to Mangalore.	28th June 1901	77-37	...	...	...	...	Work commenced.	
	(g)		Salem-Attur		Salem to Attur	16th September 1903.	38-08	...	...	...	...	Commencement of work not yet authorized.	
	(h)	Morappur-Dharmapuri.	Morappur to Dharmapuri.		24th October 1902.	...	...	18-36	...	...	Work commenced.		
	(i)	Tirupattur-Krishnagiri.	Tirupattur to Krishnagiri.	24th October 1902.	...	...	25-43	...	...	Work commenced.			
					Total		118-16	11-50	43-79	...			
	(a)	North Western State.	North Western State.	State line worked by the State.	From a point 12 miles south of Quetta to Nuahki	6th August 1902.	82-50	...	...	...	Work commenced.		
					Hyderabad to Badin	15th May 1903	62-00	...	...	...	Work commenced.		
	(a)		Southern Punjab.	Branch line company assisted under rebate terms.	Sargoda to Shorkot Road.	23rd September 1903.	103-00	...	...	...	Work commenced.		
	(i)		Jullundur-Kapurthala-Sultanpur (British section).	State line worked by the State.	Ludhiana to MacLeodganj.	10th November 1903.	156-40	...	...	...	Work commenced.		
	(j)		Jullundur-Kapurthala-Sultanpur (Native state section).	Native state line worked by the State.	Jullundur to the British Frontier.	7th August 1903.	...	...	6-60†	...	Commencement of work not yet authorized.		
					Sultanpur to the British Frontier.	7th August 1903.	...	...	22-02†	...	Commencement of work not yet authorized.		
					Total		403-90	...	28-82	...			
20	(a)	Ondh and Rohilkhand State.	Ondh and Rohilkhand State.	State line worked by the State.	Allahabad to Siwait	8th November 1901.	11-25	...	...	...	Portion since opened.		
					Sultanpur to Fysabad.	8th November 1901.	36-37	...	...	...	...	...	Since opened.
					Meerut to Hapur	3rd April 1903	19-50	...	...	...	...	...	Work commenced.
					Phaphaman to Zafarabad.	2nd October 1903.	57-50	...	...	...	...	...	Not commenced.
					Total		124-63	...	...	...			
					Carried over	...	1,130-00	413-54	289-37	57-86			

† Question of gauge not yet finally settled.

Appendix 4.  
Miles under construction.

APPENDIX 4—contd.

(Appendix 5 in Report for 1902.)

Mileage under construction or sanctioned at the close of the Calendar year 1903, with additions to the 30th April 1904.

(Referred to in paragraphs 4 and 5 of Report.)

NOTE.—For references to the several mileage statements, see notes at head of Appendix 1.

NUMBER.		Railway administration by which being constructed.	Name of owning railway.	Classification.	Section of line, the construction of which has been sanctioned.	Date construction was sanctioned.	MILEAGE SANCTIONED AND STILL REMAINING TO BE CONSTRUCTED.				REMARKS.
Main head.	Sub-head.						5' 6"	3' 33"	2' 6"	2' 0"	
					Brought forward...	...	1130'20	413'54	239'37	57'86	
12	(a)	Bengal and North-Western.	Bengal and North-Western.	Assisted company receiving land only from Government.	Anurihar to Jaunpur. Kopaganj to Dohri-ghat. Uska Bazar to Tulsipur. Gaisanri to Jarwa.	1st November 1902. 28th April 1903. 31st March 1903. 31st March 1903.	...	36'14	...	...	Since opened. Since opened. Work commenced Work commenced
	(c)		Tirhoot State.	State line worked by company.	Gorakhpur to Bagaha. Sakri to Jainagar. Mansi to Bapthahi. Sihras to Murliganj. Bairagnia to Biknathori. Bettiah to Bagaha.	31st March 1903. 1st June 1899. 23rd September 1903. 23rd September 1903. 23rd September 1903. 23rd September 1903.	...	12'56	...	...	Work commenced. Not commenced. Work commenced Work commenced Work commenced Work commenced
15	(a)	Burma	Burma	State line worked by company.	Pegu to Martaban	27th November 1903.	...	121'27	...	...	Commencement of work not yet authorized
19	(a)	Rohilkund and Kumaon.	Rohilkund and Kumaon.	Assisted company, subsidized by the Government of India.	Barailly to Soron. Moradabad to Ramnagar. Lalkua to Kashipur	3rd July 1903 3rd July 1903 3rd July 1903	...	56'00 47'00 45'00	...	...	Work commenced. Not commenced. Not commenced.
	(a)		South Indian	State line worked by company.	Tirupachetti to Sivagunga. Arantangi Quarry branch.	21st April 1899. 15th November 1900.	...	9'00 3'90	...	...	Not commenced. Work commenced.
20	(d)	South Indian	Tanjore District Board.	District Board line.	Adirampattam Salt siding. Thambikkottai Salt siding.	15th November 1900. 15th November 1900.	...	1'00 0'63	...	...	Not commenced. Not commenced.
	(e)		Tinnevely-Quilon (Travancore) (British section).	State line worked by company.	...	21st April 1899.	...	0'91	...	...	Work commenced.
	(f)		Tinnevely-Quilon (Travancore) (Native state section).	Native state line worked by company.	Quilon to the British frontier near Shencottah.	21st April 1899.	...	57'62	...	...	Work commenced.
21	(g)	Southern-Mahratta.	Bellary-Rayadrug.	State line worked by company.	Bellary to Rayadrug.	24th October 1902.	...	33'00	...	...	Work commenced.
	(j)		Hospet-Kottur	State line worked by company.	Hospet to Kottur.	24th October 1902.	...	44'10	...	...	Work commenced.
					Total		...	77'10	...	...	
23	(a)	Baraset-Basihat Light.	Baraset-Basihat Light.	Assisted company subsidized by District Board.	Baraset to Basihat	3rd April 1903.	...	...	26'00	...	Work commenced.
24	(a)	Barsi Light	Barsi Light	Assisted company receiving land only from Government.	Barsi Road Jn. to Pandharpur. Barsi Town to Tadwala.	6th January 1898. 20th November 1900.	...	...	30'67 26'70	...	Not commenced. Not commenced.
					Total		...	...	57'37	...	
26	(a)	Cutch	Cutch	Line owned and worked by native state.	Anjar to Tuna	26th August 1903.	...	...	11'86	...	Work commenced.
27	(a)	Dwara-Therria Light.	Dwara-Therria Light.	Assisted company, receiving land only from Government.	Dwara to Maolong Maolong to Therria Ghat.	15th May 1902. 15th May 1902.	...	...	13'50 6'00	...	Work commenced. Commencement of work not yet authorized.
					Total		...	...	19'50	...	
					Ammayanayakkannur to Kotagudi.	30th May 1899.	...	...	55'00	...	Not commenced.
29	(a)	Madura District Light.	Madura District Light.	Assisted company subsidized by District Board.	Perriyakulam to Krishna Mannik's Tope. Theni to Karuvanath.	30th May 1899. 30th May 1899.	...	...	5'00 33'00	...	Not commenced. Not commenced.
					Total		...	...	93'00	...	
					Carried over	...	1130'20	1256'20	497'10	57'86	

## APPENDIX 4—conold.

Appendix 4.  
Miles under construction.

(Appendix 5 in Report for 1902.)

Mileage under construction or sanctioned at the close of the Calendar year 1903, with additions to the  
30th April 1904.

[Referred to in paragraphs 4 and 5 of Report.]

NOTE.—For references to the several mileage statements, see notes at head of Appendix 1.

NUMBER.		Railway administration by which being constructed.	Name of owning Railway.	Classification.	Section of line, the construction of which has been sanctioned.	Date construction was sanctioned.	MILEAGE SANCTIONED AND STILL REMAINING TO BE CONSTRUCTED.				REMARKS.
Main head.	Sub-head.						5' 6"	8' 33"	2' 6"	2' 0"	
89	(a)	Shahdara-Saharanpur Light.	Shahdara-Saharanpur Light	Assisted company receiving land only from Government.	Brought forward ...	...	1,120'00	1,256'20	497'10	67'66	
					Shahdara to Saharanpur.	4th January 1902.	...	...	95'00	...	Not commenced.
					Baraut to Meerut	4th January 1902.	...	...	80'00	...	Not commenced.
					Total		...	...	125'00	...	
86	(a)	Bengal Provincial Light.	Tarakshwar-Magra Light.	Unassisted company	Magra to Tribeni...	...	...	...	2'15	...	Since opened.
					Jagatballubpur to Antpur.	20th March 1902.	...	...	...	8'50	Work commenced.
87	(a)	Howrah-Amta Light.	Howrah-Amta Light.	Assisted company, subsidized by District Board.	Antpur to Champadanga.	20th March 1902.	...	...	...	9'00	Commencement of work not yet authorized.
					Antpur to Rajbulhat.	20th March 1902.	...	...	...	3'50	Commencement of work not yet authorized.
					Total		...	...	...	21'00	
Total mileage sanctioned and still remaining to be constructed on the 31st December 1903.							1,120'00	1,256'20	624'25	78'66	
MILEAGE SANCTIONED FROM 1st JANUARY TO 31st MARCH 1904.											
5	(a)	East Indian ...	East Indian ...	State line worked by company.	Khurja to Hapur	13th January 1904.	38'87	...	...	...	Not commenced.
6	(a)	Great Indian Peninsula.	Great Indian Peninsula.	State line worked by company.	Warora to Bellarpur	22nd January 1904.	37'90	...	...	...	Work commenced.
	(f)		Gwalior Light	Native State line worked by company.	Sabulgarh to Sheopur.	9th February 1904.	...	...	...	65'00	Not commenced.
Total mileage sanctioned from 1st January to 31st March 1904							76'77	...	...	65'00	
MILEAGE SANCTIONED FROM 1st TO 30th APRIL 1904.											
15	(a)	Burma . . .	Burma . . .	State line worked by company.	Henzada to Kyan-gin.	19th April 1904.	...	65'66	...	...	Not commenced.
18	(a)	Jodhpur-Bikaner.	Jodhpur . . .	Line owned and worked by native state.	Merta Road to Merta City.	29th April 1904.	...	8'95	...	...	Not commenced.
Total mileage sanctioned from 1st to 30th April 1904							...	74'61	...	...	



Appendix 5.  
Sterling Capital authorized.

Capital authorized to be raised for each Guaranteed railway, State line leased to companies, and Rail-  
31st Decem-  
(Referred to in paragraph

NUMBER.	RAILWAYS.	AMOUNT AUTHORIZED TO BE RAISED BY THE COMPANIES UP TO THE 31ST DECEMBER 1903.				AMOUNT RAISED BY THE COMPANIES AND TAXY OF STATE IN ENGLAND TO THE		
		Share Capital.	Debentures.	Debenture stock.	Total.	Share Capital.	Debentures.	Debenture stock.
Main head.	Sub-head.	£	£	£	£	£	£	£
<b>Guaranteed.</b>								
3	(a) Bombay, Baroda and Central India . . . . .	7,550,300	2,960,400	...	10,510,700	7,528,628	2,959,125	...
7	(a) Madras . . . . .	10,257,630	1,562,900	...	11,820,530	† 10,257,630	1,561,618	...
	<b>Total</b>	<b>17,807,930</b>	<b>4,523,300</b>	...	<b>22,331,230</b>	<b>17,786,258</b>	<b>4,520,743</b>	...
<b>State lines leased to Companies.</b>								
1	(a) Bengal Central . . . . .	500,000	1,500,000	...	1,000,000	§ 500,000	...	...
2	(a) Bengal-Nagpur . . . . .	2,000,000	1,700,000	...	4,700,000	3,000,000	1,693,703	..
	(b) Do. Extension . . . . .	...	2,805,000	...	2,805,000	...	2,802,635	...
6	(e) Indian Midland . . . . .	3,000,000	3,654,100	...	6,654,100	3,000,000	3,651,994	...
11	(a) Assam-Bengal . . . . .	1,500,000	1,355,900	...	2,855,900	†† 1,500,000	1,353,650	...
19	(b) Lucknow-Bareilly section (Rohilkund and Kumaon) . . . . .	...	147,000	...	147,000	...	** 147,000	...
21	(a) Southern Mahratta . . . . .	3,500,000	1,193,100	...	4,693,100	§ 3,491,540	1,192,350	...
21	(g) Mysore section (Southern Mahratta) . . . . .	...	...	1,200,000	1,200,000	...	...	1,200,000
15	(a) Burma . . . . .	2,000,000	...	1,250,000	3,250,000	§§ 2,000,000	...	1,199,819
	<b>Total</b>	<b>13,500,000</b>	<b>11,355,100</b>	<b>2,450,000</b>	<b>27,305,100</b>	<b>13,491,540</b>	<b>10,841,323</b>	<b>2,399,819</b>
<b>Branch Lines.*</b>								
3	(g) Ahmedabad-Dholka . . . . .	86,667	...	...	86,667	...	...	...
3	(h) Ahmedabad-Parantij. . . . .	133,333	...	...	133,333	...	...	...
4	(b) Brahmaputra-Saltanpur . . . . .	187,325	...	...	187,325	...	...	...
10	(b) Hardwar-Dehra . . . . .	200,000	...	...	200,000	...	...	...
4	(d) Mymensingh-Jamalpur-Jagannathganj . . . . .	146,748	...	...	146,748	...	...	...
5	(c) South Behar . . . . .	400,000	...	290,000	690,000	...	...	...
3	(f) Tapti-Valley . . . . .	993,333	...	40,000	1,033,333	...	...	...
	<b>Total</b>	<b>2,147,408</b>	...	<b>330,000</b>	<b>2,477,408</b>	...	...	...
	<b>GRAND TOTAL</b>	<b>33,455,336</b>	<b>15,978,400</b>	<b>2,780,000</b>	<b>52,113,736</b>	<b>31,277,798</b>	<b>15,862,065</b>	<b>2,399,819</b>

\* These have a rupee capital and an Indian domicile, except the South Behar Railway which has a sterling capital and an English domicile.

Details of Debenture loans on 31st December 1903 and the dates at which the loans expire.

Bombay, Baroda and Central India Railway—

£	Rate	Term
100,000	2½ per cent.	1st April 1904.
120,000	3½ "	1st February 1905.
140,700	3 "	8th July 1905.
536,000	3 "	1st December 1905.
149,100	3½ "	15th June 1906.
150,000	3½ "	10th July 1906.
100,500	3½ "	8th January 1907.
320,000	3½ "	10th January 1907.
500,000	3½ "	30th June 1907.
198,800	3½ "	8th July 1908.
300,000	3½ "	7th November 1908.
300,000	3½ "	1st January 1909.
55,000	3½ "	5th May 1910.
<b>2,960,400</b>		

Madras Railway—

£	Rate	Term
103,100	2½ per cent.	30th June 1904.
300,000	3½ "	30th June 1904.
100,000	3 "	31st December 1905.
111,500	3 "	30th June 1906.
140,000	3½ "	30th June 1906.
145,000	3½ "	31st December 1906.
100,000	3½ "	30th April 1907.
54,200	3½ "	30th June 1907.
200,000	3½ "	31st October 1907.
81,400	3½ "	31st December 1907.
53,300	3½ "	31st December 1907.
174,400	3½ "	30th June 1909.
<b>1,502,900</b>		

Appendix 5.  
Sterling Capital authorized.

DIX 5.  
Report for 1903.)

way constructed under the "Branch Line" terms, the amount raised and the amount withdrawn to  
ber 1903.  
of Report.)

ADVANCED BY THE SECUR- SIST DECEMBER 1903.		AMOUNT RAISED IN INDIA TO THE 31ST DECEMBER 1903.		Total amount raised to the 31st December 1903.	TOTAL AMOUNT WITH- DRAWN TO THE 31ST DECEMBER 1903.		REMARKS.
Capital not bearing interest (premium).	Advances made to companies from money raised under Act 51, Vict., Cap. 5.	Share Capital.	Capital not bearing interest (premium).		During calendar year 1903.	Up to the close of calendar year 1903.	
£	£	£	£	£	£	£	
28,766	...	*21,672	...	10,538,191	123,659	10,906,461	* 5 per cent.
7,274	...	...	...	11,826,522	116,994	12,288,613	† 5 " " " " " £ 8,757,670 ‡ " " " " " " " 999,960 § " " " " " " " 500,000
36,040	...	21,672	...	22,364,713	240,653	23,195,074	† Replaced by advances raised under Act 51, Vict., Cap. 5.
...	500,000	...	...	1,000,000	5,091	1,018,259	§ 3½ per cent.
8,150	2,760,000	...	...	7,461,858	67,830	7,859,190	4 " "
9,430	...	...	...	2,812,075	1,214,732	7,566,546	¶ Includes expenditure by the State on the Katni-Umaria section, which is equi- valent to £223,389.
-5,977	1,845,000	...	...	7,991,017	234,574	8,508,656	** £147,000 sterling debentures were issued by the Company in England and sold for Rs. 20,34,195. This sum was paid into the Calcutta Treasury and at the contract rate is equivalent to a sterling payment of £160,837. Expenditure in excess of this capital has been advanced in India.
15,385	...	...	...	2,862,035	...	2,862,035	
...	...	...	...	147,000	13,728	450,609	
30,923	2,129,900	8,460	34	††6,853,207	28,120	††6,767,570	†† Includes capital raised for completion of the Bellary-Kistna section, and expenditure thereon from the 1st January 1888.
24,000	...	...	...	1,224,000	14,961	1,216,060	
...	...	...	...	2,199,819	207,183	2,303,347	
81,931	6,784,908	8,460	34	33,558,006	1,786,237	33,559,272	‡‡ 3 per cent. §§ 2½ " "
...	...	73,048	...	73,048	19,381	(i) 66,512	(i) Inclusive of £9,474 (Rs. 1,42,116) expended direct by the Company.
...	...	130,000	2,667	(a) 132,667	1,257	(a) 132,591	(a) Inclusive of £9,809 (Rs. 1,40,147) being outlay incurred direct by the Company.
...	...	198,723	...	(b) 198,723	1,633	(b) 198,166	(b) Inclusive of £12,219 (Rs. 1,83,292) being outlay incurred direct by the Company.
...	...	189,667	...	189,667	537	(c) 189,635	(c) Inclusive of £14,524 (Rs. 2,17,857) being expenditure direct by the Company.
...	...	156,496	...	(d) 156,496	2,883	(d) 155,361	(d) Including a loan from the Managing Agents of the Company.
...	...	(e) 669,580	15,000	684,580	885	(e) 736,986	(e) Inclusive of £8,516 (Rs. 1,37,744) being outlay incurred direct by the Company.
...	...	(h) 872,537	17	872,554	2,121	(h) 868,827	(h) Including Debenture Stock amounting to £290,000.
...	...	2,290,050	17,634	2,307,734	23,697	2,344,279	(i) Equivalent to Rs. 1,20,01,897 and includ- ing £316,466 (Rs. 52,18,073) expended direct by the Company in England, and £52,737 (Rs. 7,92,809) advanced to the Company in India.
117,971	6,784,900	2,320,182	17,718	58,230,453	2,055,587	65,098,625	(j) Including Debenture Stock amounting to £29,203 (Rs. 5,33,049). (k) Inclusive of £78,017 (Rs. 11,70,261) being outlay incurred direct by the Company.

Bengal-Nagpur Railway—

£		
400,000	2½ per cent.	21st April 1904.
400,000	3 " "	18th August 1905.
400,000	3 " "	15th June 1906.
109,300	3 " "	10th July 1906.
250,700	3½ " "	10th January 1907.
48,900	3½ " "	18th February 1907.
135,000	3½ " "	3rd January 1908.
400,000	3½ " "	4th May 1908.
265,600	3½ " "	18th February 1909.
750,000	3½ " "	1st June 1909.
785,500	3½ " "	18th February 1910.
4,505,000		

Indian Midland Railway—

£		
1,000,000	3½ per cent.	30th June 1904.
150,000	3 " "	30th June 1905.
582,900	3½ " "	30th June 1906.
890,000	3½ " "	31st December 1906
610,000	3½ " "	30th June 1907.
421,200	3½ " "	31st December 1907.
500,000	3½ " "	3rd October 1908.
3,654,100		

Southern Mahratta Railway—

£		
100,000	2½ per cent.	1st April 1904.
68,100	3 " "	1st October 1905.
600,000	3 " "	1st April 1906.
50,000	3½ " "	1st October 1907.
255,000	3½ " "	1st October 1908
100,000	3½ " "	31st May 1909.
1,193,100		

Assam-Bengal Railway—

£		
300,000	2½ per cent.	13th April 1905.
560,000	3½ " "	4th July 1907.
495,900	3½ " "	4th July 1909.
1,355,900		

Lucknow-Bareilly Railway—

£147,000 . . . . . 3½ per cent. . . . . 1st July 1904.

Appendix 6.  
Budget allotments.

APPEN  
(Appendix 9 in

Amount allotted to each Railway Administration for expenditure on capital account

Referred to in paragraph

CLASS : No. RAILWAY.	1 (a). BENGAL CENTRAL.					2 (a), (b) AND (d). BENGAL-NAGPUR.					3 (a). BOMBAY, BARODA AND			
	Particulars.	Capital asked for.	Capital at first allotted.	Capital allotted on revision of Budget.	Capital actually expended.	Mileage opened during the year.	Capital asked for.	Capital at first allotted.	Capital allotted on revision of Budget.	Capital actually expended.	Mileage opened during the year.	Capital asked for.	Capital at first allotted.	Capital allotted on revision of Budget.
Year.														
1894-95	5,52,000	62,000	52,000	52,790	...	5,76,000	6,46,000	3,16,000	2,32,462	...	15,96,000	9,75,000	17,70,000	
1895-96	5,96,000	1,01,000	55,000	52,622	...	7,07,000	6,94,000	22,92,000	21,12,011	...	30,40,000	25,50,000	22,12,000	
1896-97	17,42,000	7,35,000	9,94,000	9,62,522	...	2,55,84,000	1,69,64,000	1,55,77,000	1,57,62,296	...	39,75,000	47,11,000	31,02,000	
1897-98	14,53,000	7,00,000	6,79,000	6,57,022	...	9,22,23,000	2,12,84,000	1,94,00,000	1,84,62,142	...	50,00,000	67,46,000	27,00,000	
1898-99	27,10,500	4,00,000	7,81,000	6,14,222	...	2,37,56,000	2,07,00,000	1,66,10,000	1,84,46,022	323'63	53,50,000	66,43,000	45,91,000	
1899-1900	16,60,000	4,00,000	4,00,000	1,07,764	...	2,35,10,000	1,77,00,000	1,77,00,000	1,70,70,924	5'75	40,00,000	41,00,000	51,81,000	
1900-01	2,63,000	2,50,000	2,50,000	2,32,624	...	1,47,72,000	1,05,00,000	81,04,000	70,81,127	22'54	41,50,000	10,00,000	12,22,000	
1901-02	3,03,000	1,50,000	1,72,000	1,72,222	...	1,22,32,000	1,74,51,000	1,20,32,000	1,44,02,124	2'25	30,25,000	22,00,000	37,72,000	
1902-03	2,74,000	2,00,000	2,41,000	1,32,612	...	2,64,45,000	2,02,00,000	1,74,22,000	1,72,12,224	120'00	12,25,000	16,25,000	22,02,000	
1903-04	62,000	62,000	50,000	...	...	2,55,20,000	1,27,00,000	1,62,44,000	...	143'61	22,45,000	2,45,000	22,21,000	
5 (a). EAST INDIAN.					6 (a) AND (g). GREAT INDIAN PENINSULA.					6 (b) AND (e) INDIAN				
1894-95	62,20,000	24,00,000	25,41,000	22,22,222	52'97	15,22,000	15,01,000	17,22,000	12,22,222	...	12,22,222	22,07,000	22,22,000	
1895-96	52,70,000	21,20,000	22,50,000	22,11,122	22'22	15,42,000	12,72,000	6,70,000	5,22,722	...	2,50,700	2,22,000	2,22,000	
1896-97	1,00,00,000	11,22,000	62,00,000	64,24,212	4'81	16,02,000	16,22,000	-2,42,000	-4,20,222	1'07	1,00,22,222	22,07,000	22,14,000	
1897-98	1,20,00,000	1,05,00,000	1,20,00,000	1,22,24,202	1'25	12,20,000	40,47,000	14,24,000	15,45,212	...	22,55,000	22,01,000	22,24,000	
1898-99	1,50,00,000	1,22,25,000	1,42,00,000	1,22,22,222	2'61	45,75,000	62,64,000	20,72,000	22,27,222	...	22,00,000	20,10,000	20,24,000	
1899-1900	1,22,00,000	1,50,00,000	1,22,00,000	1,22,22,222	122'42	45,45,000	45,24,000	20,02,000	22,74,222	120'00	12,22,000	17,20,000	22,42,000	
1900-01	1,27,20,000	1,22,20,000	1,22,00,000	1,22,22,222	2'22	27,22,000	12,20,000	-22,22,000	22,22,172	21'02	22,42,000	7,50,000	17,72,000	
1901-02	1,27,20,000	1,27,20,000	1,42,21,000	1,42,12,222	...	12,42,000	12,22,000	2,12,000	2,72,272	...	22,20,000	22,20,000	27,42,000	
1902-03	1,27,20,000	1,27,20,000	1,42,00,000	1,22,22,222	27'75	21,20,000	2,20,000	12,12,000	24,27,222	...	22,42,000	22,15,000	14,74,000	
1903-04	1,27,20,000	1,27,20,000	1,27,20,000	...	4'42	1,22,20,000	1,22,20,000	77,22,000	...	...	22,27,000	22,27,000	22,22,000	
10 (a) to (e). ODISHA AND BHOJIPUR STATE.					11 (a). ASSAM BENGAL.					12 (a). BENGAL AND NORTH-WESTERN				
94-95	21,71,000	22,22,000	27,12,000	25,12,122	22'07	1,22,24,000	22,22,000	1,27,72,000	1,22,21,222	...	12,22,000	2,00,000	2,02,000	
95-96	44,22,000	20,42,000	20,21,000	22,22,272	...	2,02,22,000	1,47,17,000	1,42,22,000	1,27,22,222	122'20	7,71,000	7,00,000	2,02,000	
96-97	22,72,000	22,24,000	24,77,000	21,21,222	42'72	2,24,22,000	1,72,00,000	1,17,00,000	1,12,22,222	201'72	4,22,000	42,22,000	24,42,000	
97-98	21,10,000	21,10,000	22,72,000	22,22,212	42'02	1,22,22,000	1,22,00,000	1,20,24,000	1,12,21,122	...	72,11,000	71,00,000	22,22,000	
98-99	22,22,000	22,22,000	24,22,000	24,22,022	122'22	1,44,12,000	1,12,20,000	1,20,24,000	1,24,02,202	22'22	22,20,000	22,00,000	40,70,000	
99-1900	71,22,000	24,72,000	22,72,000	22,21,022	22'02	1,24,00,000	20,00,000	1,00,22,000	1,01,24,222	20'21	22,01,000	24,00,000	20,00,000	
0-01	40,22,000	20,22,000	22,72,000	22,22,012	22'77	1,22,22,000	1,22,10,000	21,20,000	20,22,222	142'20	47,22,000	22,22,000	20,22,000	
1-02	20,44,000	12,21,000	22,21,000	22,24,122	...	22,72,000	22,45,000	72,00,200	70,47,212	10'75	20,42,000	22,42,000	27,42,000	
2-03	42,72,000	22,72,000	47,42,000	22,24,222	...	27,24,000	22,04,000	72,44,000	27,12,722	24'50	21,22,000	21,20,000	22,22,000	
3-04	22,22,000	40,22,000	22,22,000	...	72'27	21,10,000	20,00,000	22,42,000	...	22'70	22,27,000	22,00,000	22,22,000	
EAST COAST STATE.					19 (b). BHOJIPUR AND KUMAON (LUCKNOW-BAREILLY SECTION).					20 (a), (c) AND (f). SOUTH INDIAN				
95	22,22,222	72,12,000	72,22,000	22,21,222	20'71	2,72,000	2,20,000	1,22,000	1,11,222	1'75	17,74,000	2,00,000	2,00,000	
96	22,00,000	22,00,000	27,20,000	27,22,212	127'27	2,20,000	2,02,000	2,22,000	2,02,222	...	14,22,000	2,20,000	2,20,000	
97	1,02,72,000	22,72,000	1,12,22,000	1,10,42,012	47'12	4,22,000	2,42,000	2,27,000	2,02,222	...	2,12,000	2,00,000	1,20,000	
98	1,02,20,000	1,02,20,000	20,72,000	22,42,222	2'22	2,22,000	2,22,000	4,42,000	2,27,222	...	2,22,000	2,00,000	-2,70,000	
99	22,12,000	22,44,000	22,22,000	22,22,222	222'22	2,20,000	1,20,000	1,22,000	1,22,122	...	-22,70,000	-12,44,000	-20,00,000	
1900	22,22,000	27,00,000	20,22,000	22,02,712	...	1,20,000	20,000	20,000	-2,222	...	2,00,000	2,00,000	10,22,000	
01	24,22,000	14,00,000	11,20,000	...	7'12	1,12,000	2,74,000	2,74,000	2,22,222	...	20,00,000	12,00,000	42,12,000	
02	"	"	"	"	"	2,22,000	2,22,000	4,00,000	4,22,222	...	1,22,44,000	1,12,44,000	21,27,000	
03	"	"	"	"	"	12,40,000	11,40,000	2,22,000	2,24,222	...	22,00,000	22,00,000	22,22,000	
04	"	"	"	"	"	24,000	24,000	2,21,000	...	2'27	20,22,000	12,02,000	42,22,000	

Notes.— (1) The credit items represent the amounts by which credits under suspense and on account of capital, guilely  
(2) Only the figures for the years 1902-03 and 1903-04 include information relating to Frontier Reserve material, "Stores"  
† For amounts of special items included in these figures and  
‡ Includes Rs. 20,00,000 for purchase of lines, Rs. 2,000 for  
§ Includes Rs. 1,22,17,000 for special  
¶ Includes a credit of Rs. 21,000 for Warora Colliery  
\*\* Includes Rs. 22,714 for Bezwada extension and Sabarmati-Dholka and

Appendix 6.  
Budget allotments.

DIX 6.  
Report for 1902).

during each official year from 1894-95 and the amount actually expended.

19 of Report).

CENTRAL INDIA.		3 (b), (f) AND (h), RAJPUTANA-MALWA.					4 (a), (b), (c) AND (e). EASTERN BENGAL STATE.					CLASS No. RAILWAY.
Capital actually expended.	Mileage opened during the year.	Capital asked for.	Capital at first allotted.	Capital allotted on revision of Budget.	Capital actually expended.	Mileage opened during the year.	Capital asked for.	Capital at first allotted.	Capital allotted on revision of Budget.	Capital actually expended.	Mileage opened during the year.	Particulars.
												Year.
20,05,100	...	30,45,000	23,20,000	23,34,000	30,50,000	...	21,75,000	9,00,000	6,45,000	6,02,000	...	1894-95
27,55,500	...	40,30,000	34,50,000	28,74,000	23,55,244	...	13,00,000	12,00,000	14,16,000	14,35,285	...	1895-96
28,63,000	...	16,40,000	14,44,000	3,47,000	-62,693	25'81	40,00,000	40,75,800	45,59,000	42,79,950	...	1896-97
25,51,000	...	9,52,000	6,55,000	1,80,000	1,27,324	...	69,14,000	71,25,000	49,33,000	56,02,739	...	1897-98
40,21,000	...	17,41,000	15,00,000	6,63,000	-1,25,096	...	1,07,69,000	66,57,000	39,83,000	33,05,840	9'49	1898-99
41,49,343	...	23,65,000	9,00,000	18,00,000	11,50,566	...	78,49,000	64,97,000	53,45,000	54,50,381	32'82	1899-1900
14,72,303	...	30,80,000	12,00,000	27,44,000	20,69,502	...	97,60,000	61,56,000	51,95,000	43,26,000	53'84	1900-01
38,24,369	...	23,14,000	31,28,000	14,91,000	15,05,915	...	96,08,000	77,00,000	82,01,000	82,83,190	6'97	1901-02
22,41,400	...	34,14,000	30,01,000	24,04,000	24,55,629	54'25	1,14,30,000	90,29,000	42,73,000	77,13,349	36'75	1902-03
...	43'67	54,15,000	46,09,000	28,35,000	...	...	1,78,34,000	1,17,98,000	1,25,95,000	...	0'93	1903-04
MISAPRA.		7 (a), (c), (d) AND (f). MADRAS.					8 (a), (f) AND (g). NORTH WESTERN STATE.					
7,49,723	...	11,44,000	6,16,000	3,95,000	1,98,000	...	29,91,000	61,31,000	1,31,30,000	1,14,89,843	...	1894-95
4,99,915	1'77	5,99,731	3,63,000	3,41,000	2,99,454	8'55	1,67,00,000	1,32,37,000	1,55,39,000	1,53,73,545	103'29	1895-96
70,19,372	...	8,31,700	5,66,000	6,08,000	4,85,779	...	1,38,63,000	1,37,84,000	1,51,27,000	1,55,72,773	263'83	1896-97
30,13,399	47'83	11,17,000	13,18,000	2,78,000	3,05,723	...	81,63,000	64,10,000	65,63,000	67,18,432	...	1897-98
19,24,568	69'21	45,89,000	55,05,000	9,07,000	7,79,654	...	76,07,000	69,46,000	77,31,000	73,18,184	...	1898-99
19,97,974	...	16,00,000	28,04,000	20,29,000	18,06,799	...	51,99,000	54,24,000	46,77,000	43,97,895	124'61	1899-1900
13,15,243	...	60,73,000	31,13,000	39,47,000	43,77,503	...	92,49,000	43,68,000	64,06,000	62,80,302	118'13	1900-01
28,08,047	...	46,76,000	47,00,000	41,28,000	37,31,500	28'75	85,61,000	68,87,000	69,15,000	63,94,914	...	1901-02
15,10,373	...	69,25,000	62,00,000	58,54,000	84,46,013	79'75	92,92,000	90,28,000	17,19,000	1,14,99,941	31'00	1902-03
...	6'50	1,23,19,000	1,16,90,000	62,37,000	...	25'72	1,77,35,000	1,29,23,000	86,89,000	...	109'29	1903-04
(TIRUCHI SECTION).		15 (a). BURMA.					19 (c). JODHPUR-BIKANER [JODHPUR-HYDRABAD (BRITISH SECTION)].					
2,68,104	...	36,31,000	36,23,000	33,93,000	33,49,504	15'46	...	...	...	...	...	1894-95
5,98,232	...	15,54,700	11,11,000	16,09,000	16,71,732	141'07	...	...	...	...	...	1895-96
36,59,394	...	8,75,000	75,28,000	71,63,000	66,23,514	...	...	...	...	...	...	1896-97
47,24,244	...	77,10,000	77,10,000	55,16,000	52,35,329	50'00	...	...	25,000	7,997	...	1897-98
34,58,341	...	99,50,000	1,00,00,000	70,00,000	72,12,343	...	23,75,000	1,00,000	10,03,000	9,70,556	...	1898-99
22,27,918	73'17	1,18,13,000	80,00,000	78,00,000	78,14,726	57'31	24,81,000	9,90,000	10,04,000	9,42,349	...	1899-1900
53,03,480	92'18	1,02,85,000	88,00,000	97,83,000	98,59,997	130'66	17,93,000	10,00,000	3,99,000	3,83,069	68'49	1900-01
25,99,443	11'36	1,22,00,000	96,74,000	95,64,000	92,05,123	53'70	5,000	1,58,000	2,25,000	1,25,998	...	1901-02
31,55,243	68'00	1,90,00,000	54,50,000	58,50,000	58,11,768	133'25	59,500	40,000	69,000	59,141	28'00	1902-03
...	...	72,53,000	47,53,000	29,53,000	...	25'53	...	8,000	3,000	...	...	1903-04
		21 (a), (c) AND (g). SOUTHERN MYSORATA.					TOTAL.					
1,05,000	...	8,49,000	14,09,000	7,31,000	6,91,943	...	5,39,60,819	4,67,01,000	5,98,93,000	5,57,80,019	230'96	1894-95
3,53,940	...	11,77,000	12,62,000	8,12,000	7,55,397	...	7,05,01,131	5,29,32,000	6,29,00,000	6,02,00,529	574'37	1895-96
1,49,597	...	15,01,000	14,78,000	9,80,000	9,04,305	...	11,38,38,680	9,97,19,000	9,12,89,000	8,62,53,584	590'21	1896-97
-5,91,900	...	19,70,000	19,07,000	9,23,000	8,17,548	...	13,32,63,600	10,87,61,000	9,94,89,000	8,79,43,225	146'77	1897-98
-19,53,793	...	18,66,000	15,20,000	7,98,000	8,12,707	...	12,45,14,500	11,60,75,000	9,43,75,000	8,81,38,509	831'37	1898-99
10,48,003	4'49	9,65,000	6,00,000	4,75,000	4,60,853	...	11,42,97,000	8,76,41,000	9,43,30,000	9,12,64,433	494'80	1899-1900
28,97,339	1'45	12,10,000	6,00,000	6,06,000	7,32,000	...	11,65,05,000	7,30,84,000	8,30,75,000	8,08,35,457	847'71	1900-01
88,12,176	...	8,25,000	6,00,000	4,26,000	1,86,599	...	11,09,99,000	110,82,44,000	19,38,55,800	8,90,39,039	113'78	1901-02
51,94,680	128'00	10,70,000	10,70,000	6,99,000	3,75,323	...	11,80,89,500	111,00,00,000	110,34,58,000	10,05,75,980	878'25	1902-03
...	30'98	14,49,000	13,45,000	2,05,000	...	...	115,01,68,000	112,00,00,000	119,82,07,000	...	590'77	1903-04

Transferred from one railway system to another exceed the amounts allotted and expended on works of construction.  
and "Colleries."  
railway and partly to the Madras railway from the 1st January 1901.  
not included in the detailed statement see report for 1902.  
Borwada extension, and a credit of Rs. 25,000 for Warora Colliery.  
Items not included in the statement.  
not included in the statement.  
a credit of Rs. 2,22,198 not taken into account in the detailed statement.

Appendix 7.  
Annual Capital outlay.

APPENDIX  
(Appendix 10)  
Capital expenditure in thousands of rupees

(Referred to in paragraph)

Number.	Railways (including branches worked.)	EXPENDITURE ON NEW LINES IN THOUSANDS OF RUPEES EXCLUDING SUSPENSE.									
		YEARS.									
		1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.
1 (a)	Bengal Central . . .	...	...	...	...	...	...	...	...	...	...
2 (a) to (c)	Bengal-Nagpur . . .	80	1,36	62,32	1,71,83	1,71,20	1,67,01	79,14	40,25	1,42,51	1,17,84
3 (a) to (f) & (m) & (n).	Bombay, Baroda and Central India . . .	8	6,03	18,76	16,82	49,86	60,95	24,05	13,72	9,76	23,48
4 (a) to (e)	Eastern Bengal State . . .	61	18	4	8,00	13,89	29,15	31,10	40,07	35,32	30,98
5 (a) to (d)	East Indian . . .	11,36	11,96	18,06	80,80	1,07,94	68,09	39,69	33,15	28,67	43,99
6 (a) to (g)	Great Indian Peninsula . . .	34,83	65,36	27,30	65,83	80,87	67,71	18,77	2,19	4,12	26,43
7 (a) to (f) & (h) & (i).	Madras . . .	6,45	...	24,41	10,91	7,47	11,38	20,30	54,50	39,56	60,42
8 (a) to (c)	Nizam's Guaranteed State . . .	...	...	...	15,32	40,79	78,37	37,66	...	...	...
9 (a) to (k)	North Western State . . .	77,51	1,15,54	2,13,51	1,26,86	62,24	41,82	41,48	54,63	49,91	30,87
10 (a) to (c)	Oudh and Rohilkhand State . . .	30,21	15,14	23,03	39,38	23,72	39,27	27,17	9,30	20,61	54,52
11 (a) & (b)	Assam-Bengal . . .	1,06,03	1,39,34	1,11,06	1,09,69	1,35,82	1,05,81	97,65	88,10	71,84	45,68
12 (a) to (c)	Bengal and North-Western . . .	3	21,09	32,03	1,04,74	62,86	70,90	23,39	30,86	26,15	12,83
13 (a) & (b)	Bengal Doosra . . .	...	...	...	72	1,86	7,98	18,19	15,61	15,56	8,50
14 (a) to (d)	Bhavnagar-Gondal-Junagadh- Porbandar . . .	17	16	9,24	9,30	5,43	...	...	...	...	...
15 (a)	Burma . . .	...	67,44	43,40	39,67	43,29	62,52	50,63	56,42	35,77	...
16 (a)	Deoghur . . .	...	...	...	...	...	...	...	...	...	...
17 (a) & (b)	Dibru-Sadiya . . .	...	...	...	...	...	...	...	...	...	...
18 (a) to (c)	Jodhpur-Bikaner . . .	...	...	23	10,04	26,40	4,86	6,61	4,00	6,77	...
19 (a) to (f) & (e).	Rajputana-Malwa . . .	54,05	14,22	18,44	12,09	8,53	2,67	59	21	1,07	5,63
20 (a) to (e)	Rohilkhand and Kumaon . . .	1,54	96	4	...	...	...	...	3	43	83
21 (a) to (f)	South Indian . . .	7,49	1,00	53	5,19	—21,05	2,70	14,00	36,50	73,39	56,12
22 (a) to (f)	Southern Mahratta . . .	...	...	...	...	...	...	...	...	...	2,56
23 (a)	Udaipur-Chitor . . .	3,05	10,26	18	26	1,13	2,13	45	21	...	...
24 (a)	Baraset-Basirhat Light . . .	...	...	...	...	...	...	...	...	...	...
25 (a)	Barsi Light . . .	...	...	...	...	...	...	...	...	...	...
26 (a)	Bukhtiarpore-Behar Light . . .	...	...	...	...	...	...	...	...	...	5,30
27 (a)	Cutch . . .	...	...	...	...	...	...	...	...	...	92
28 (a)	Dwara-Therria Light . . .	...	...	...	...	...	...	...	...	...	8,24
29 (a)	Kalka-Simla . . .	...	...	...	...	...	3,39	4,51	23,53	40,99	50,99
30 (a)	Morvi . . .	...	...	...	...	...	...	2,32	11	3	85
31 (a)	Ranaghat-Krishnagar Light . . .	...	...	...	1,01	5,01	5	...	...	...	...
32 (a)	Tarakeswar-Magra Light . . .	...	...	...	...	...	...	...	...	...	16
33 (a)	Tespur-Balipara Light . . .	2,32	62	...	...	...	...	...	...	...	...
34 (a)	Darjeeling-Himalayan . . .	...	...	...	...	...	...	...	...	...	...
35 (a)	Howrah-Amta Light . . .	...	...	3,62	4,01	29	5	1	8	...	20
36 (a)	Howrah-Sheakhala Light . . .	...	...	1,31	2,81	33	...	...	...	...	...
37 (a)	Jorhat . . .	...	...	...	...	...	...	...	...	...	...
	TOTAL . . .	3,36,51	4,70,66	6,07,51	8,30,33	8,27,93	8,28,84	5,42,51	5,02,50	...	...

DIX 7.  
Report for 1902.)  
during each of the past 10 years.

11 of Report.)

EXPENDITURE ON ROLLING STOCK IN THOUSANDS OF RUPEES EXCLUDING SUSPENSE.										Number.
Years.										
1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	
...	...	...	11,59	4,87	1,95	27	3	4	15	1 (a).
26	2,15	2,26	32	1,18	39,92	27,35	4,29	57,16	34,13	2 (a) to (e). <sup>2</sup>
5,25	6,94	2,08	24	6,00	18,84	13,34	4,24	2,51	7,97	3 (a) to (f) & (m) & (n).
55	8,26	7,30	16,68	10,52	18,21	4,57	13,01	18,12	35,25	4 (a) to (e).
8,60	26,91	12,02	27,27	86,32	1,06,52	64,34	73,57	54,29	17,91	5 (a) to (d).
9,85	2,68	2,40	7,85	1,63	8,27	13,36	21,27	12,27	31,84	6 (a) to (g).
45	33	1,65	6,57	1,47	3,66	3,26	10,11	25,43	16,44	7 (a) to (f) & (h) & (i).
1	27	2,22	49	3,06	12,80	12,67	1,51	6,86	3,05	8 (a) to (c).
87	2,08	10,63	36,32	21,85	5,70	79	12,30	22,21	14,24	9 (a) to (k).
57	3,06	59	3,51	7,06	5,68	79	5,85	17,98	23,91	10 (a) to (c).
4,63	17,52	16,29	4,25	2,65	1,63	87	3,05	7,69	9,86	11 (a) & (b).
14	9,03	2,25	9,98	24,08	16,84	18,58	18,47	12,49	18,33	12 (a) to (a).
...	1	1	52	1	4,09	2,32	1,40	7	25	13 (a) & (b).
8	2	1,80	87	1,24	8	16	60	35	55	14 (a) to (d).
10,84	9,93	8,80	1,50	6,86	11,96	4,74	20,85	26,60	19,57	15 (a).
...	...	...	...	...	...	...	...	...	...	16 (a).
60	1,06	78	14	20	16	2,52	1,13	...	9	17 (a) & (b).
-1,86	-11	39	...	6,06	14,14	22	2,23	1,96	4,22	18 (a) to (c).
4,86	1,12	2,15	-12	-1,69	3,07	1,83	89	3,70	3,19	19 (g) to (j) & (e).
2	33	18	2	2,43	1,02	3,39	2,06	6,86	6,11	19 (a) to (c).
1,59	87	29	1,22	43	73	26	-3	1,46	2,96	20 (a) to (f).
1,80	87	45	1,40	5,34	3,42	1,44	1,88	26	85	21 (a) to (j).
...	...	...	2,25	5	...	...	43	...	...	22 (a).
...	...	...	...	...	...	...	...	...	...	23 (a).
...	...	2,49	1,77	27	...	...	-89	...	...	24 (a).
...	...	...	...	...	...	...	...	...	2,17	25 (a).
...	...	...	...	...	...	...	...	...	12	26 (a).
...	...	...	...	...	...	...	...	...	...	27 (a).
...	...	...	...	...	...	...	...	1,07	3,93	28 (a).
24	-10	24	2	12	4	6	10	-12	-23	30 (a).
...	...	...	...	1,20	...	24	...	...	...	31 (a).
...	...	...	...	1	18	...	...	...	1	33 (a).
98	27	18	...	6	12	...	...	...	...	34 (a).
-42	1	24	2	-25	54	-16	1	9	41	36 (a).
...	...	1,08	1,26	99	11	46	...	72	...	37 (a).
...	...	...	1,17	48	...	...	...	...	3	38 (a).
4	6	-7	88	20	...	...	-81	4	12	39 (a).
44,76	98,07	78,70	1,37,44	1,43,71	2,67,68	1,77,57	1,96,73	2,84,06	2,62,54	TOTAL.



Appendix 7.  
Annual Capital outlay.

APPEN  
(Appendix 10 in  
Capital expenditure in thousands of rupees

(Referred to in paragraph

Number.	Railways (including branches worked).	EXPENDITURE ON IMPROVEMENT OF EXISTING LINE IN THOUSANDS OF RUPEES EXCLUDING SUSPENSE.									
		YEARS.									
		1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.
1 (a)	Bengal Central . . . .	69	34	69	86	2,15	75	1,66	1,18	1,15	78
2 (a) to (e)	Bengal-Nagpur . . . .	3,18	3,15	10,08	3,56	57	25	1,68	3,87	1,61	3,58
3 (a) to (f) & (m) & (n).	Bombay, Baroda and Central India.	7,59	16,10	23,86	28,88	15,88	36,60	8,42	21,74	9,89	5,71
4 (a) to (e)	Eastern Bengal State . . .	3,93	5,91	18,06	27,03	7,64	8,72	13,85	11,37	15,46	23,86
5 (a) to (d)	East Indian . . . . .	10,98	14,38	15,75	19,32	28,96	40,78	48,92	64,24	58,69	41,88
6 (a) to (g)	Great Indian Peninsula . .	13,31	9,92	6,09	4,37	8,04	6,75	10,23	11,65	17,04	23,56
7 (a) to (f) & (h) & (i).	Madras . . . . .	2,11	3,66	4,07	3,30	3,16	2,43	3,93	9,33	4,56	5,91
8 (a) to (e)	Nizam's Guaranteed State .	3,97	1,79	82	3,15	1,24	-1,03	2,78	6,53	8,14	3,76
9 (a) to (h)	North Western State . . .	25,83	29,48	30,47	23,30	18,92	20,58	19,10	14,67	48,44	23,43
10 (a) to (c)	Oudh and Rohilhand State	1,83	7,09	2,61	4,01	4,38	9,74	8,30	9,45	12,75	12,40
11 (a) & (b)	Assam-Bengal . . . . .	...	...	...	...	...	...	...	...	...	...
12 (a) to (c)	Bengal and North-Western	3,29	1,53	49	2,86	5,05	6,63	12,21	7,19	25,66	21,79
13 (a) & (b)	Bengal Doocra . . . . .	...	49	84	1,08	53	33	16	2	5	21
14 (a) to (d)	Bhavnagar-Gondal-Junagad- Porbandar.	1,34	2,66	1,08	73	2,10	91	31	16	40	3
15 (a)	Burma . . . . .	1,00,89	7,66	17,27	6,24	5,09	11,31	25,14	22,05	7,91	20,85
16 (a)	Deoghur . . . . .	...	1	...	...	1	-1	...	...	...	...
17 (a) & (b)	Dibru-Sadiya . . . . .	27	21	-26	2,41	7	...	6	7,20	23	32
18 (a) to (c)	Jodhpur-Bikaner . . . . .	1,58	-4	18	7	6,35	-31	-1,58	3,16	3,77	62
3 (g) to (j) & (o).	Rajputana-Malwa . . . . .	3,18	5,04	5,14	2,85	3,33	3,98	3,53	8,20	13,83	9,48
19 (a) to (e)	Rohilkand and Kumaon . . .	63	59	2,56	1,71	79	21	1,15	1,03	66	1,59
20 (a) to (f)	South Indian . . . . .	-2,63	92	1,01	76	1,52	3,59	3,03	3,83	1,46	3,40
21 (a) to (j)	Southern Mahratta . . . . .	5,28	7,63	4,01	5,60	6,29	7,50	5,79	4,59	3,29	2,98
22 (a)	Udaipur-Chitor . . . . .	...	...	...	...	...	...	...	19	4	1
23 (a)	Baraset-Basirhat Light . . .	...	...	...	...	...	...	...	...	...	...
24 (a)	Barsi Light . . . . .	...	...	...	...	...	...	...	...	7	...
25 (a)	Bukhtiarpore-Bihar Light . .	...	...	...	...	...	...	...	...	...	...
26 (a)	Cutch . . . . .	...	...	...	...	...	...	...	...	...	...
27 (a)	Dwara-Therria Light . . . . .	...	...	...	...	...	...	...	...	...	...
28 (a)	Kalka-Simla . . . . .	...	...	...	...	...	...	...	...	...	...
30 (a)	Morvi . . . . .	53	1,37	10	49	7	5	-16	1	...	...
31 (a)	Ranaghat-Krishnagar Light . .	...	...	...	...	...	...	...	...	...	...
33 (a)	Tarakeshwar-Magra Light . . .	...	...	...	...	1	1	...	2	5	6
34 (a)	Tezpur-Balipara Light . . . .	...	...	9	3	1	5	13	...	...	...
36 (a)	Darjeeling-Himalayan . . . . .	40	20	42	38	49	25	10	21	12	31
37 (a)	Howrah-Amra Light . . . . .	...	...	...	...	...	...	...	...	...	...
38 (a)	Howrah-Sheakhala Light . . .	...	...	...	...	...	...	...	...	...	2
39 (a)	Jorhat . . . . .	13	3	10	...	...	4	...	17	3	...
	TOTAL	1,93,12	1,20,15	1,45,44	1,48,49	1,22,09	1,59,64	1,68,79	2,11,55	2,35,35	2,04,96

**DIX 7—concluded.**  
Report for 1902.)  
during each of the past 10 years.

**Appendix 1**  
**Annual Capital outlay**

11 of Report.)

TOTAL CAPITAL EXPENDITURE IN THOUSANDS OF RUPEES INCLUDING SUSPENSE.										Number.
YEARS.										
1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	
55	36	4,59	10,29	6,90	3,04	34	2,58	1,58	76	1 (a).
1,92	6,19	1,16,54	1,99,28	1,62,45	1,98,87	75,84	77,61	1,76,45	1,94,63	2 (a) to (c).
16,18	28,18	54,14	58,08	89,09	98,82	28,58	56,65	29,50	19,61	3 (a) to (f) (m) & (n).
5,73	14,62	27,24	51,23	35,51	56,49	49,25	66,77	81,52	1,19,84	4 (a) to (e).
33,52	62,80	70,12	1,42,83	1,66,97	2,18,13	1,62,49	1,41,12	1,45,82	1,89,68	5 (a) to (d).
61,62	74,39	51,02	71,81	79,51	78,98	53,32	44,54	23,58	1,16,21	6 (a) to (g).
7,98	4,39	27,45	19,63	12,65	19,37	55,11	63,58	60,36	86,09	7 (a) to (f) & (h) & (i).
42	4,15	1,85	18,30	60,32	96,90	32,24	18,40	15,84	5,78	8 (a) to (c).
1,07,47	1,72,05	2,63,14	1,66,19	82,47	66,46	83,47	93,87	1,30,10	69,58	9 (a) to (h).
36,11	85,29	20,23	44,90	83,16	55,89	39,26	32,76	76,47	87,45	10 (a) to (e).
1,43,79	1,57,49	1,17,01	1,16,28	1,18,74	1,13,15	86,46	25,47	69,86	53,24	11 (a) & (b).
3,56	45,34	35,46	1,68,40	79,96	70,13	55,94	48,78	63,47	53,92	12 (a) to (c).
...	42	1,07	2,17	4,25	22,26	19,77	15,33	10,45	7,09	13 (a) & (d).
2,19	2,83	14,18	8,67	8,95	92	17	96	44	67	14 (a) to (d).
1,24,03	74,82	82,48	59,87	51,62	86,24	92,79	95,26	71,01	31,08	15 (a).
...	1	...	...	1	—1	...	...	—9	...	16 (a).
87	1,23	53	2,55	27	17	2,57	8,32	1,73	41	17 (a) & (b).
—21	—15	43	10,12	89,36	18,04	4,89	19,78	6,64	—57	18 (a) to (c).
43,87	34,23	11,46	—2,88	9,43	10,59	17,19	12,74	22,33	30,58	3 (g) to (l) & (o)
2,23	2,50	2,61	3,79	2,10	13	5,37	4,34	12,92	4,60	19 (a) to (o).
5,25	5,25	—14	4,59	—19,88	7,39	17,47	47,49	99,17	52,83	20 (a) to (f).
7,87	7,31	6,59	8,19	11,05	8,74	8,15	4,33	1,22	24,96	21 (a) to (j).
3,05	10,26	18	2,51	1,18	2,16	45	82	4	1	22 (a).
...	...	...	...	...	...	...	...	...	...	23 (a).
...	...	2,49	1,77	27	...	...	—89	19	...	24 (a).
...	...	...	...	...	...	...	...	...	7,48	25 (a).
...	...	...	...	...	...	...	...	...	1,04	26 (a).
...	...	...	...	...	...	...	...	...	8,24	27 (a).
...	...	...	...	...	5,81	6,10	22,98	57,95	48,51	28 (a).
66	1,76	—17	94	3	27	2,22	31	—26	56	30 (a).
...	...	...	1,01	6,21	5	24	...	...	...	31 (a).
...	...	...	...	2	24	—1	10	20	33	33 (a).
2,30	89	27	3	7	17	13	...	...	...	34 (a).
—3	21	65	41	24	79	—6	22	20	72	36 (a).
...	...	4,70	5,27	1,23	16	47	8	72	20	37 (a).
...	...	1,81	3,98	81	...	...	...	...	5	38 (a).
18	10	87	87	7	22	—23	—8	—5	8	39 (a).
6,12,31	7,44,95	9,17,85	11,80,61	10,44,17	12,40,27	8,99,98	9,65,10	11,59,36	11,65,11	TOTAL.

Appendix 8.  
Capital outlay.

APPEN  
(Appendix 11

Capital outlay in thousands of rupees on each railway to the  
(Referred to in paragraphs

NUMBER.	Sub-head.	RAILWAY.	LENGTH OF LINE.						I.—PRELIMINARY EXPENSES.	
			Open.			Under construction.			Open.	Under construction.
			Single track.	Double track.	Total.	Single track.	Double track.	Total.		
			Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		
<b>PART I.</b>										
<b>I.—State lines worked by Companies.</b>										
1	(a)	Bengal Central . . . . . 5' 6" gauge	125-01	—	125-01	—	—	—	1-48	—
2	(a)	Bengal-Nagpur . . . . . "	1,666-11	16-35	1,682-46	43-32	—	43-32	20-68	26
8	(b)	Bezwa Extension . . . . . "	20-58	—	20-58	—	—	—	15	—
6	(b)	Bhopal-Itarsi (British section) . . . . . "	13-11	—	13-11	—	—	—	61	—
5	(a)	East Indian . . . . . "	1,441-77	†493-34	1,935-11	215-14	—	215-14	17-81	2-75
3	(b)	Godhra-Buland-Nagda . . . . . "	141-14	—	141-14	—	—	—	1-80	—
6	(a)	Great Indian Peninsula . . . . . "	1,099-71	461-92	1,561-63	—	—	—	10-59	—
6	(e)	Indian Midland . . . . . "	805-03	—	805-03	—	—	—	9-95	—
7	(c)	Madras (North-East line) . . . . . "	496-73	0-46	497-19	0-93	—	0-93	3-44	—
11	(a)	Assam-Bengal . . . . . 3' 3½" gauge	643-68	—	643-68	96-70	—	96-70	17-73	6-77
15	(a)	Burma . . . . . "	1,324-82	12-15	1,336-97	††	—	—	28-55	—
21	(c)	Guntakal-Mysore frontier . . . . . "	119-50	—	119-50	—	—	—	59	—
18	(c)	Jodhpur-Hyderabad (British section) . . . . . "	123-96	—	123-96	—	—	—	59	—
19	(b)	Lucknow-Bareilly . . . . . "	237-04	—	237-04	—	—	—	1-63	—
21	(g)	Mysore section (Southern Mahratta) . . . . . "	296-22	—	296-22	—	—	—	2-95	—
7	(d)	Nilgiri . . . . . "	16-99	—	16-99	†	—	—	—	—
8	(j)	Palampur-Deesa (British section) . . . . . "	17-28	—	17-28	—	—	—	2	—
3	(k)	Rajputana-Malwa . . . . . "	1,646-38	2-92	1,649-30	133-32	—	133-32	22-71	—
19	(a)	Rohilkund and Kumaon . . . . . "	53-92	—	53-92	55-56-00	—	56-00	91	8
20	(a)	South Indian . . . . . "	1,123-13	—	1,123-13		—	—	11-31	—
21	(a)	Southern Mahratta . . . . . "	1,042-04	—	1,042-04	—	—	—	10-91	—
20	(e)	Tinnevely-Quilon (Travancore) (Br. secn.) . . . . . "	49-93	—	49-93	—	—	—	50	—
12	(c)	Tirhoot . . . . . "	516-89	—	516-89	238-35	—	238-35	2-18	14
2	(b)	Jubbulpur-Gondia extension . . . . . 2' 6" gauge	133-19	—	133-19	155-50	—	155-50	39	66
2	(d)	Raipur-Dhamtari . . . . . "	—	—	—	—	—	—	—	—
		<b>TOTAL</b> . . . . .	<b>13,154-18</b>	<b>987-14</b>	<b>14,141-32</b>	<b>939-26</b>	<b>—</b>	<b>939-26</b>	<b>1,66-98</b>	<b>10-66</b>
<b>II.—State lines worked by the State.</b>										
4	(a)	Eastern Bengal State . . . . . 5' 6" gauge	166-47	112-21	278-68	8-25	—	8-25	1-37	17
4	(c)	Eastern Bengal State* . . . . . 3' 3½" and 2' 6" gauges	533-27	—	533-27	195-87	—	195-87	3-01	1-07
		Dacca section . . . . . 3' 3½" gauge	85-92	—	85-92	—	—	—	1-28	—
9	(a)	North Western State, Commercial section 5' 6" gauge	1,975-03	108-00	2,083-03	165-00	—	165-00	29-91	1-05
		Ditto Military section . . . . . "	986-55	60-36	1,046-91	—	—	—	12-63	—
10	(a)	Oudh and Rohilkhand State . . . . . "	1,101-19	—	1,101-19	**67-12	—	67-12	13-49	—
10	(c)	Cawnpore-Burhwal (metre gauge link) 3' 3½" gauge	79-60	—	79-60	—	—	—	32	—
9	(f)	Khushalgarh-Kohat-Thal . . . . . 2' 6" gauge	91-73	—	91-73	—	—	—	55	—
9	(g)	Nowshera-Durgai . . . . . "	40-25	—	40-25	—	—	—	31	—
30	(a)	Jorhat . . . . . 2' 0" gauge	30-25	—	30-25	—	—	—	—	—
		<b>TOTAL</b> . . . . .	<b>5,090-26</b>	<b>230-57</b>	<b>5,370-83</b>	<b>436-24</b>	<b>—</b>	<b>436-24</b>	<b>62-87</b>	<b>2-29</b>
<b>III.—Companies' lines guaranteed by Government under old contracts.</b>										
8	(a)	Bombay, Baroda and Central India . . . . . 5' 6" gauge	252-45	251-90	504-35	—	—	—	—	—
7	(a)	Madras . . . . . "	856-48	43-43	899-91	3-90	—	3-90	1-10	68
		<b>TOTAL</b> . . . . .	<b>1,108-93</b>	<b>295-33</b>	<b>1,404-26</b>	<b>3-90</b>	<b>—</b>	<b>3-90</b>	<b>1-10</b>	<b>68</b>
<b>IV.—Companies' lines guaranteed by Government under modern contracts.</b>										
10	(b)	Hardwar-Dehra . . . . . 5' 6" gauge	32-04	—	32-04	—	—	—	98	—
4	(b)	Brahmaputra-Sultanpur . . . . . 3' 3½" gauge	59-37	—	59-37	—	—	—	1-98	—
		<b>TOTAL</b> . . . . .	<b>91-41</b>	<b>—</b>	<b>91-41</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>2-96</b>	<b>—</b>
<b>V.—District Boards' lines.</b>										
20	(d)	Tanjore District Board . . . . . 3' 3½" gauge	99-46	—	99-46	3-90	—	3-90	34	—

\* Northern, Behar and Kavis-Dhubri sections (including the Teesta-Kurigram branch and British section, Cooch Behar-Saurabari extension, excludes the Nainpur-Mandla section of the Jubbulpur-Gondia extension railway, 22-67 miles, on which work has not been commenced. † Excludes the Nainpur-Mandla section of the Jubbulpur-Gondia extension railway, 11-50 miles, on which work has not been commenced. †† Excludes the Nainpur-Mandla section of the Jubbulpur-Gondia extension railway, 11-50 miles, on which work has not been commenced.

Appendix 8.  
Capital outlay.

DIX 8.

in Report for 1902.)

close of the year 1903, distributed over main heads of expenditure.

to 8 of Report.)

II.—LAND.		III.—FORMATION.		IV.—BRIDGE-WORK.		V.—FENCING.		VI.—ELECTRIC TELEGRAPH.		VII.—BALLAST AND PERMANENT WAY.		VIII.—STATIONS AND BUILDINGS.		IX.—COLLIERY WORKS.	
Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.
1,80	...	7,78	...	14,72	...	4,21	...	...	...	45,84	...	12,27	...	...	...
98,20	1,80	2,74,93	4,85	5,06,67	6,78	11,00	7	5	...	6,63,23	11,75	1,62,90	41	...	...
47	...	1,70	...	1,66	...	18	...	...	...	5,37	...	79	...	...	...
18	...	16,10	...	18,68	...	2,18	...	...	...	27,99	...	10,37	...	...	...
42,81	2,05	2,52,32	12,44	7,76,69	6,23	40,79	12	29,83	...	12,04,19	22,99	4,96,58	35	25,40	...
36	...	60,95	...	41,38	...	2,67	...	4	...	46,97	...	15,08	...	...	...
2,43	...	11,63,02†	...	...	...	...	...	18,29	...	7,63,42	...	3,98,21	...	...	...
12,38	...	1,02,45	...	2,38,33	...	26,76	...	18	...	3,44,25	...	96,30	...	...	...
14,93	...	53,99	...	1,79,39	...	4,89	...	17	...	1,69,12	...	44,15	...	...	...
35,12	1,36	1,95,43	2,51,03	1,18,13	41,42	12,38	21	...	...	1,32,02	24,82	66,51	2,50	...	...
21,97	...	2,08,76	...	1,97,92	...	29,56	...	17	...	3,15,40	...	1,18,79	...	...	...
28	...	7,84	...	20,35	...	60	...	1	...	18,33	...	4,75	...	...	...
37	...	4,47	...	4,64	...	40	...	...	...	21,93	...	3,75	...	...	...
2,80	...	5,78	...	7,91	...	2,03	...	...	...	38,99	...	10,99	...	...	...
1,58	...	24,84	...	21,73	...	1,44	...	...	...	51,02	...	17,04	...	...	...
...	...	15	...	...	...	...	...	...	...	—1	...	1	...	...	...
...	...	64	...	59	...	10	...	...	...	3,10	...	55	...	...	...
14,38	...	75,71	...	2,16,79	...	32,58	...	38	...	3,77,91	...	2,04,84	...	...	...
2	...	1,28	...	1,53	...	58	...	...	...	8,99	33	1,79	...	...	...
10,83	...	56,57	...	1,49,26	...	17,89	...	1,07	...	2,12,68	...	90,44	...	...	...
11,71	...	1,91,88	...	1,87,19	...	15,57	...	...	...	2,18,39	...	1,23,27	...	...	...
3,25	...	3,26	...	5,04	...	77	...	1	...	14,34	...	2,70	...	...	...
26,26	...	37,31	...	1,01,56	...	12,48	...	22	...	1,20,32	...	46,12	...	...	...
28	32	3,97	11,24	5,99	11,31	12	10	...	...	24,42	12,63	1,88	1,06	...	...
2,96,58	5,98	27,51,13	2,59,56	28,15,68	65,74	2,19,84	50	50,37	...	48,66,41	72,52	19,24,56	4,32	25,40	...
27,59	18,50	14,73	5,17	30,59	1,98	7,13	2,10	1	...	1,22,91	3,49	74,19	2,53	...	...
14,43	5	41,28	61	1,27,55	55	13,09	1	25	...	1,22,19	1,01	58,85	2	...	...
5,33	...	7,00	...	5,90	...	1,14	...	...	...	19,26	...	14,42	...	...	...
26,03	...	2,80,36	28	7,06,61	13	74,50	...	8,05	...	9,63,61	2,96	3,98,63	1	...	...
10,64	...	3,96,90	...	3,60,34	...	7,16	...	86	...	4,54,51	...	1,10,74	...	...	...
14,61	...	51,21	29	3,46,84	45	33,79	4	46	...	4,12,76	3,35	1,51,31	25	...	...
95	...	1,37	...	2,66	...	2,56	...	...	...	12,16	...	4,01	...	...	...
2,37	...	11,48	...	12,59	...	36	...	...	...	12,97	...	4,85	...	...	...
26	...	80	...	4,77	...	12	...	...	...	6,98	...	1,70	...	...	...
6	...	82	...	65	...	3	...	...	...	3,37	...	89	...	...	...
1,02,27	18,55	2,05,95	6,35	15,98,70	2,41	1,39,88	2,15	9,63	...	21,86,72	15,81	3,14,79	2,81	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	4,01,66†	15,05	...	12,76	...	2,93	11,63	7	4,00,51	24,49	1,12,20	6,18	...	...
...	...	4,01,66†	15,05	...	12,76	...	2,93	11,63	7	4,00,51	24,49	1,12,20	6,18	...	...
...	...	6,24	...	5,69	...	52	...	...	...	8,93	...	2,25	...	...	...
...	...	4,39	...	2,95	...	17	...	...	...	14,20	...	2,90	...	...	...
...	...	10,63	...	9,64	...	69	...	...	...	23,18	...	5,15	...	...	...
2,80	7	3,50	1	13,19	1	71	...	3	...	15,48	...	3,72	...	...	...

of which pass through the Government accounts.

2 6' gauge). † Of this, 220 miles have treble track.

‡ Includes expenditure on open line under the two subsequent columns.

\* Excludes the Phaphaman-Zafarabad branch, 57.50 miles, on which work has not been commenced.

†† Excludes the Phaphaman-Zafarabad branch, 57.50 miles, on which commencement of work has not yet been authorized.

Appendix 8.  
Capital outlay.

APPEN

(Appendix 11

Capital outlay in thousands of rupees to the close of the  
(Referred to in paragraphs

NUMBER.	Sub-head.	Railway.	X.—PLANT.		XI.—ROLLING-STOCK.		XII.—GENERAL CHARGES.		XIII.—EXCHANGE.	
			Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.
<b>PART I—continued.</b>										
<b>I.—State lines worked by Companies.</b>										
1	(a)	Bengal Central . . . . . 5' 6" gauge	4,07	—	28,81	—	8,46	—	—	—
2	(a)	Bengal-Nagpur . . . . . "	47,12	1,06	3,34,48	—	1,33,43	1,74	6,53	—
3	(b)	Bezwa Extension . . . . . "	8	—	20	—	1,17	—	—	—
6	(b)	Bhopal-Itarsi (British section) . . . . . "	43	—	56	—	3,62	—	—	—
5	(a)	East Indian . . . . . "	69,11	9,93	11,35,30	—	5,85,51	5,08	—	—
3	(b)	Godhra-Rutlam-Nagda . . . . . "	73	—	—	—	7,39	—	—	—
6	(a)	Great Indian Peninsula . . . . . "	58,83	—	4,00,66	—	2,10,84	—	8,14	—
6	(f)	Indian Midland . . . . . "	14,66	—	2,07,16	—	38,61	—	2,52	—
7	(c)	Madras (North East line) . . . . . "	12,45	—	92,31	—	38,57	—	—	—
11	(a)	Assam-Bengal . . . . . 3' 3½" gauge	14,19	2,13	60,34	9,06	1,15,08	17,29	—	—
15	(a)	Burma . . . . . "	21,17	—	1,99,16	—	1,08,72	—	12,51	—
21	(c)	Guntakal-Mysore frontier . . . . . "	30	—	—	—	6,14	—	—	—
18	(c)	Jodhpur-Hyderabad (British section) . . . . . "	32	—	7	—	3,95	—	—	—
19	(b)	Lucknow-Bareilly . . . . . "	2,77	—	32,42	—	4,85	—	42	—
21	(g)	Mysore-section (Southern Mahratta) . . . . . "	3,67	—	25,15	—	9,32	—	—	—
7	(d)	Nilgiri . . . . . "	—	—	—	—	2	—	—	—
3	(f)	Palampur-Dacca (British section) . . . . . "	7	—	—	—	15	—	—	—
3	(k)	Rajputana-Malwa . . . . . "	33,66	—	2,85,14	—	83,41	—	49,09	—
19	(a)	Rohilkund and Kumaon . . . . . "	46	12	6,88	—	1,83	43	—	—
20	(a)	South Indian . . . . . "	18,01	—	1,34,49	—	36,25	—	2,42	—
21	(a)	Southern Mahratta . . . . . "	30,66	—	1,16,26	—	65,10	—	4,91	—
20	(e)	Tinnevely-Quilon (Travancore) (Br. sec.) . . . . . "	31	—	2,30	—	4,08	—	—	—
12	(c)	Tirhoot . . . . . "	10,07	1	95,37	—	28,72	10	7,05	—
2	(b)	Jubbulpur-Gondia extension . . . . . 2' 6" gauge	39	67	14,98	—	3,72	6,13	—	—
2	(d)	Baipur-Dhamstri . . . . . "	—	—	—	—	—	—	—	—
<b>TOTAL</b>			<b>3,43,53</b>	<b>13,92</b>	<b>31,21,45</b>	<b>9,06</b>	<b>15,23,54</b>	<b>30,77</b>	<b>93,59</b>	<b>—</b>
<b>II.—State lines worked by the State.</b>										
4	(a)	Eastern Bengal State . . . . . 5' 6" gauge	8,49	10	1,57,30	—	51,52	1,13	—2	—
4	(c)	Eastern Bengal State* . . . . . 3' 3½" and 2' 6" gauges	16,63	55	1,02,11	5	35,12	84	9,31	—
		Dacca section . . . . . 3' 3½" gauge	2,59	—	15,70	—	3,63	—	3,06	—
9	(a)	North Western State, Commercial sec. 5' 6" gauge	79,78	1	5,73,47	—	2,46,78	26	46,89	—
		Ditto Military sec. . . . . "	22,42	—	1,14,38	—	74,76	—	40,80	—
10	(a)	Oudh and Rohilkhand State . . . . . "	30,78	8	2,18,19	—	1,02,61	16	—	—
10	(c)	Cawnpore-Burhwal (metre gauge link) 3' 3½" gauge	5	—	—	—	1,03	—	—	—
9	(f)	Khushalgarh-Kohat-Thal . . . . . 2' 6" gauge	70	—	4,37	—	4,19	—	—	—
9	(g)	Nowshera-Durgai . . . . . "	1,19	—	6,70	—	1,08	—	—	—
37	(a)	Jorhat . . . . . 2' 6" gauge	60	—	2,01	—	41	—	—	—
<b>TOTAL</b>			<b>1,63,23</b>	<b>74</b>	<b>11,94,21</b>	<b>5</b>	<b>5,21,15</b>	<b>2,39</b>	<b>93,54</b>	<b>—</b>
<b>III.—Companies' lines guaranteed by Government under old contracts.</b>										
3	(a)	Bombay, Baroda and Central India . . . . . 5' 6" gauge	—	—	2,15,95	—	—	—	—	—
7	(a)	Madras . . . . . "	18,48	3,10	1,69,64	9,15	1,25,63	5,97	—	—
<b>TOTAL</b>			<b>18,48</b>	<b>3,10</b>	<b>3,85,59</b>	<b>9,15</b>	<b>1,25,63</b>	<b>5,97</b>	<b>—</b>	<b>—</b>
<b>IV.—Companies' lines guaranteed by Government under modern contracts.</b>										
10	(b)	Hardwar-Dehra . . . . . 5' 6" gauge	24	—	—	—	2,58	—	—	—
4	(b)	Brahmaputra-Sultanpur . . . . . 3' 3½" gauge	24	—	—	—	1,54	—	—	—
<b>TOTAL</b>			<b>48</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>4,12</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>V.—District Boards' lines.</b>										
20	(d)	Tanjore District Board . . . . . 3' 3½" gauge	34	—	—	—	4,35	—	—	—

NOTE.—Part I includes all railways, the Northern, Bihar, and Kumaon-Dhubri sections (including the Teesta-Karigram branch and † Amount incurred on purchase of line. ‡ Excludes outlay on the Native State section (Rs. 50,00,000).

DIX 8—continued.  
 in Report for 1902.)  
 year 1903, distributed over main heads of expenditure.  
 (to 8 of Report.)

Appendix 8.  
 Capital outlay.

XIV.—SUNDRIES.		XV.—TOTAL.		XVI.— Average cost per mile open.	XVII.—FERRIES, ETC.		XVIII.— SUSPENSE.		XIX.— TOTAL INCLUDING FERRIES AND SUSPENSE.		XX.— Capital unclas- sified outlay.	XXI.— Capital expen- diture on collieries.	XXII.— Total suspense balance.	XXIII.— Grand Total.
Open.	Under construc- tion.	Open.	Under con- struction.		Open.	Under construc- tion.	Open.	Under construc- tion.	Open.	Under con- struction.				
...	...	1,28,53	...	1,06	...	...	3,36	...	1,81,89	...	...	...	...	...
...	...	22,54,77	23,72	1,84	21,99	...	91,91	31	23,63,67	29,03	...	...	...	...
...	...	11,77	...	57	...	...	...	...	11,77	...	...	...	...	...
...	...	80,93	...	1,41	...	...	...	...	80,93	...	...	...	...	...
18,57	...	46,74,99	61,94	2,42	13,20	...	1,80,09	...	48,17,68	61,94	...	...	...	...
...	...	1,78,02	...	1,26	...	...	...	...	1,78,02	...	...	...	...	...
...	...	20,34,43	...	1,94	...	...	74,10	...	31,08,53	...	...	...	...	...
3,79	...	10,93,96	...	1,36	...	...	...	...	10,93,96	...	...	...	...	...
...	...	6,32,41	...	1,27	59	...	84	...	6,32,41	...	...	...	...	...
775,70	...	8,63,08	3,36,79	1,34	19,21	...	17,87	3,23	9,00,26	3,40,02	...	...	...	...
...	...	12,56,79	...	94	8,47	...	86,05	...	13,01,31	...	...	...	...	...
...	...	59,07	...	49	...	...	...	...	59,07	...	...	...	...	...
...	...	39,59	...	33	27	...	59	...	40,45	...	...	...	...	...
41	...	1,09,90	...	46	72	...	4,40	...	1,15,08	...	...	...	...	...
...	...	1,58,74	...	54	...	...	3,61	...	1,62,35	...	...	...	...	...
35,07	...	35,24	...	2,07	...	...	...	...	35,24	...	...	...	...	...
...	...	4,22	...	24	...	...	...	...	552,87	...	...	...	...	...
...	...	13,46,03	** 5,78	82	...	...	49,02	...	13,95,05	** 5,78	...	...	...	...
...	-6	24,22	90	45	...	...	2	76	24,24	1,66	...	...	...	...
11,18	...	3,02,40	...	71	...	...	29,05	...	3,31,45	...	...	...	...	...
-1	...	9,75,85	...	94	...	...	12,66	...	9,98,51	...	...	...	...	...
...	...	37,28	...	75	...	...	1,01	...	38,27	...	...	...	...	...
...	...	4,87,66	25	94	8,57	...	11,17	99	5,07,40	1,24	...	...	...	...
...	...	55,51	44,32	15	...	...	...	5	55,51	44,37	...	...	...	...
144,71	-6	1,83,49,77	4,78,70	1,30	73,12	...	4,65,75	5,34	1,88,86,79	4,84,04	...	...	...	...
338,89	...	7,34,50	39,47	1,88	14,61	...	56,39	...	8,05,50	39,47	...	...	...	...
...	...	5,43,82	4,76	1,02	18,50	43	...	...	5,62,82	5,19	...	...	...	...
...	...	79,31	...	92	...	...	...	...	79,31	...	...	...	...	...
23,21	...	34,58,73	4,70	1,66	40,96	...	1,37,49	31	36,37,18	5,01	...	...	...	...
...	...	16,06,14	...	1,53	2,64	...	...	...	16,06,78	...	...	...	...	...
...	...	13,76,05	4,62	1,25	...	...	46,84	...	14,22,89	4,62	...	...	...	...
...	...	25,11	...	32	...	...	...	...	25,11	...	...	...	...	...
...	...	54,43	...	59	1,03	...	1,25	...	56,71	...	...	...	...	...
...	...	23,91	...	59	28	...	1	...	24,20	...	...	...	...	...
...	...	8,84	...	29	...	...	19	...	9,03	...	...	...	...	...
2,61,90	...	79,10,94	53,55	1,47	78,02	43	2,42,17	31	82,81,03	54,29	...	...	...	...
...	...	**11,96,96	...	2,37	...	...	40,37	...	12,37,33	...	...	...	...	...
...	...	12,35,85	80,38	1,46	...	88	46,58	40	12,82,43	81,66	...	...	...	...
...	...	24,32,31	80,38	1,73	...	88	86,95	40	25,19,76	81,66	...	...	...	...
1,01	...	23,44	...	89	...	...	...	...	23,44	...	...	...	...	...
...	...	29,37	...	49	...	...	5	...	29,42	...	...	...	...	...
1,01	...	57,81	...	63	...	...	5	...	57,86	...	...	...	...	...
...	...	44,46	9	45	...	...	...	1,15	44,46	1,24	...	...	...	...

transactions of which pass through the Government accounts.

Appendix 8.  
Capital outlay.

**APPEN**  
(Appendix 1)  
*Capital outlay in thousands of rupees on each railway to the close*  
(Referred to in paragraph

Main head.	NUMBER.	RAILWAY.	LENGTH OF LINE.						I.—PRELIMINARY EXPENSES.	
			Open.			Under construction.			Open.	Under construction.
			Single track.	Double track.	Total.	Single track.	Double track.	Total.		
			Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		
		<b>PART I—continued.</b>								
5	(e)	VI.—Branch line companies' rya. assisted by Government under "Rebate" terms. South Behar . . . . . 5' 6" gauge	78.76	—	78.76	—	—	—	7.47	—
3	(f)	Tapti Valley . . . . . "	155.48	—	155.48	—	—	—	4.18	—
3	(g)	Ahmedabad-Dholka . . . . . 3' 3 3/4" gauge	33.50	—	33.50	—	—	—	46	—
3	(k)	Ahmedabad-Parantij . . . . . "	54.70	—	54.70	—	—	—	65	—
4	(d)	Mymensingh-Jamalpur-Jagannathganj . . . . . "	52.70	—	52.70	—	—	—	4	—
		<b>TOTAL</b>	375.14	—	375.14	—	—	—	12.80	—
		VII.—Lines wholly under construction—By State Agency.								
6	(g)	Agra-Delhi Chord . . . . . 5' 6" gauge	—	—	—	119.50	0.60	120.10	—	86
		Moorshedabad Branch . . . . . "	—	—	—	97.50	—	97.50	—	88
		Quetta-Nashki . . . . . "	—	—	—	82.50	—	82.50	—	1.14
		<b>TOTAL</b>	—	—	—	†† 299.50	0.60	300.10	—	2.83
		VIII.—By Companies' Agency.								
7	(f)	Ashikal-Mangalore . . . . . 5' 6" gauge	—	—	—	77.27	—	77.27	—	86
21	(a)	Bellary-Rayadrug . . . . . 3' 3 1/4" gauge	—	—	—	33.00	—	33.00	—	—
21	(j)	Hospet-Kottur . . . . . "	—	—	—	44.10	—	44.10	—	—
20	(f)	Tinnevely-Quilon (Travancore) (Native State section) . . . . . "	—	—	—	58.53	—	58.53	—	1.18
7	(h)	Morappur-Dharmapuri . . . . . 2' 6" gauge	—	—	—	18.36	—	18.36	—	4
7	(i)	Tirupattur-Krishnagiri . . . . . "	—	—	—	25.43	—	25.43	—	11
		<b>TOTAL</b>	—	—	—	** 256.69	—	256.69	—	2.19
		<b>TOTAL PART I</b>	19,919.38	1,563.04	21,482.42	1,989.49	0.60	1,940.09	2,47.05	18.65
		<b>PART II.</b>								
		I.—Branch line companies' railways assisted by Government under "Rebate" terms.								
9	(e)	Southern Punjab . . . . . 5' 6" gauge	425.38	—	425.38	156.40	—	156.40	12.94	—
11	(b)	Noakhali (Bengal) . . . . . 3' 3 3/4" gauge	34.90	—	34.90	—	—	—	—	—
		<b>Total</b>	460.23	—	460.23	156.40	—	156.40	12.94	—
		II.—Assisted Companies' lines.								
5	(a)	(a) Subsidized by the Government of India. Delhi-Umballa-Kalka . . . . . 5' 6" gauge	163.36	—	163.36	—	—	—	8.07	—
		<b>Total</b>	163.36	—	163.36	—	—	—	8.07	—
		(b) Subsidized by Local Governments.								
17	(a)	Dibru-Sadiya . . . . . 3' 3 3/4" gauge	77.50	—	77.50	—	—	—	1.74	—
36	(a)	Darjeeling-Himalayan . . . . . 2' 0" gauge	51.00	—	51.00	—	—	—	72	—
		<b>Total</b>	128.50	—	128.50	—	—	—	2.46	—
		(c) Subsidized by District Boards.								
13	(a)	Bengal Doonars . . . . . 3' 3 3/4" gauge	36.40	—	36.40	—	—	—	1.67	—
25	(a)	Bukhtiarpore-Bihar Light . . . . . 2' 6" gauge	18.50	—	18.50	—	—	—	—	—
31	(a)	Banaghat-Krishnagar Light . . . . . "	20.25	—	20.25	—	—	—	—	—
34	(a)	Tezpur-Balipara Light . . . . . "	20.10	—	20.10	—	—	—	2	—
37	(a)	Howrah-Amta Light . . . . . 2' 0" gauge	28.69	—	28.69	†† 8.50	—	8.50	—	—
38	(a)	Howrah-Sheakhala Light . . . . . "	19.75	—	19.75	—	—	—	—	—
		<b>Total</b>	143.69	—	143.69	8.50	—	8.50	1.69	—
5	(d)	(d) Receiving land only from Government. Tarkessur . . . . . 5' 6" gauge	22.23	—	22.23	—	—	—	18	—
12	(a)	Bengal and North-Western . . . . . 3' 3 3/4" gauge	812.96	—	812.96	†† 123.94	—	123.94	7.17	1.87
13	(b)	Bengal Doonars extensions . . . . . "	116.56	—	116.56	—	—	—	4.00	—
16	(a)	Deoghur . . . . . "	4.79	—	4.79	—	—	—	—	—
12	(b)	Saganli-Baraul . . . . . "	18.09	—	18.09	—	—	—	59	—
24	(a)	Barsi Light . . . . . 2' 6" gauge	21.59	—	21.59	§§	—	—	1.51	—
28	(a)	Kalka-Simla . . . . . "	59.44	—	59.44	—	—	—	3,42§	—
19	(c)	Powayan Light . . . . . "	39.50	—	39.50	—	—	—	—	—
		<b>Total</b>	1,095.16	—	1,095.16	123.94	—	123.94	16.87	1.87
17	(b)	III.—Unassisted Companies' lines. Ledo and Tikak-Margherita Colliery . . . . . 3' 3 3/4" gauge	11.00	—	11.00	—	—	—	—	—
33	(a)	Tarakeshwar-Magra Light . . . . . 2' 6" gauge	31.12	—	31.12	2.15	—	2.15	—	—
		<b>Total</b>	42.12	—	42.12	2.15	—	2.15	—	—

Norm.—Part II includes all railways  
 \* Includes expenditure under the three preceding columns.  
 † Includes cost of bridge work.  
 †† Excludes the Salem-Attur railway, 36.06 miles, on which commencement of work has not yet been authorized.  
 § Includes charges in connection with promotion  
 §§ Includes commencement of work has not yet been authorized. †‡ Excludes



Appendix 8.  
Capital outlay.

DIX 8.  
in Report for 1902.)  
of the year 1903, distributed over main heads of expenditure.  
(6 to 8 of Report.)

II.—LAND.		III.—FORMATION.		IV.—BRIDGE-WORK.		V.—FENCING.		VI.—ELECTRIC TELEGRAPH.		VII.—BALLAST AND PERMANENT-WAY.		VIII.—STATIONS AND BUILDINGS.		IX.—COLLIERY WORKS.	
Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.
...	...	7,85	...	37,50	...	82	...	...	...	36,57	...	7,39	...	...	...
...	...	26,36	...	25,43	...	66	...	3	...	45,84	...	9,03	...	...	...
...	...	96	...	1,59	...	24	...	1	...	4,89	...	79	...	...	...
17	...	1,91	...	2,76	...	21	...	1	...	10,05	...	2,27	...	...	...
...	...	1,56	...	1,73	...	42	...	...	...	13,76	...	2,73	...	...	...
17	...	86,04	...	69,01	...	2,85	...	5	...	1,11,11	...	22,21	...	...	...
...	1,58	...	2,69	...	3,22	...	12	...	...	...	7,44	...	74	...	...
...	34	...	2,53	...	2,20	...	10	...	...	...	2,86	...	8	...	...
...	...	...	9,24	...	88	...	...	...	...	...	2,29	...	6	...	...
...	1,92	...	14,46	...	6,30	...	22	...	...	...	12,59	...	88	...	...
...	8,96	...	1,39	...	1,33	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	1,58	...	44,08	...	16,84	...	86	...	...	...	10,23	...	4,90	...	...
...	11	...	3	...	...	...	...	...	...	...	...	...	...	...	...
...	21	...	19	...	16	...	...	...	...	...	...	...	...	...	...
...	10,76	...	45,69	...	18,33	...	86	...	...	...	10,28	...	4,30	...	...
4,01,82	37,23	40,10,91	3,41,12	45,06,22	1,05,55	3,63,47	6,66	71,71	7	75,53,36	1,35,64	28,82,68	18,49	25,40	...
...	...	1,37	...	8,33	...	1,96	...	...	...	1,40,89	...	26,54	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	11,37	...	8,33	...	1,96	...	...	...	1,40,89	...	26,54	...	...	...
...	...	39,45†	...	...	...	...	...	...	...	70,89	...	14,37	...	...	...
...	...	39,45	...	...	...	...	...	...	...	70,89	...	14,37	...	...	...
39	...	...	...	...	...	...	...	12,07*	...	18,72	...	2,62	...	...	...
34	...	9,02†	...	...	...	...	...	...	...	7,17	...	5,73	...	...	...
78	...	9,02	...	...	...	...	...	12,07	...	25,89	...	8,35	...	...	...
...	...	8,60	...	3,70	...	2	...	...	...	7,86	...	2,01	...	...	...
5	...	14	...	21	...	2	...	...	...	9,95	...	88	...	...	...
...	...	...	...	...	...	...	...	...	...	15,21	...	47	...	...	...
11	...	51†	...	...	...	...	...	...	...	1,66	...	25	...	...	...
59	20	...	...	...	...	...	...	...	...	15,95	...	76	...	...	...
13	...	...	...	...	...	...	...	...	...	13,59	...	33	...	...	...
88	20	4,25	...	3,91	...	4	...	...	...	27,72	...	4,65	...	...	...
...	...	...	...	24	...	14	...	...	...	9	...	70	...	...	...
...	...	38,33	93	1,25,08	69	10,34	4	30	1	1,59,13	8,16	38,35	64	...	...
...	...	8,05	...	18,07	...	19	...	...	...	19,22	...	4,47	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	89	...	2,70	...	8	...	...	...	3,54	...	75	...	...	...
22	...	14	...	71	...	13	...	...	...	3,05	...	1,43	...	...	...
4	...	83,35	...	5,76	...	56	...	...	...	10,13	...	3,56	...	...	...
...	...	10	...	18	...	...	...	...	...	71	...	11	...	...	...
20	...	1,86,36	93	1,52,74	69	11,44	4	30	1	1,95,87	8,16	69,37	64	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	...	70	1	1,46	2	6	...	...	...	4,03	12	45	...	...	...
91	...	70	1	1,46	2	6	...	...	...	4,03	12	45	...	...	...

the transactions of which do not pass through the Government accounts.  
† Includes expenditure under the four preceding columns.  
‡ Includes expenditure under the two subsequent columns.  
of this railway (Rs. 2,41,947.)

Appendix 8.  
Capital outlay.

APPE

(Appendix

Capital outlay in thousands of rupees on each railway to the close of the year

(Referred to in paragraph

NUMBER.		RAILWAY.	LENGTH OF LINE.						I.—PRELIMINARY EXPENSES.	
Main head.	Sub-head.		OPEN.			UNDER CONSTRUCTION.			Open.	Under construction.
			Single track.	Double track.	Total.	Single track.	Double track.	Total.		
<b>PART II—continued.</b>			Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		
<b>IV.—Native State lines.</b>										
<b>(a) Worked by Native States.</b>										
14	(a)	Bhavnagar-Gondal-Jamagad-Porbandar 8' 3 3/4" gauge	334.19	...	334.19	...	...	...	1.19	...
18	(b)	Bikaner . . . . . "	245.35	...	245.35	...	...	...	25	...
14	(b)	Dhrangadra . . . . . "	28.83	...	28.83	...	...	...	6	...
14	(c)	Jamnagar . . . . . "	54.22	...	54.22	...	...	...	19	...
14	(d)	Jetalsar-Bajkot . . . . . "	46.21	...	46.21	...	...	...	14	...
18	(a)	Jodhpur . . . . . "	454.94	...	454.94	...	...	...	89	...
22	(a)	Udaipur-Chitor . . . . . "	67.30	...	67.30	...	...	...	8	...
20	(a)	Morvi . . . . . 2' 6" gauge	94.36	...	94.36	...	...	...	18	†
		<b>Total</b> . . . . .	1,317.40	...	1,317.40	...	...	...	2.21	1
<b>(b) Worked by Companies.</b>										
6	(b)	Bhopal-Itarsi (Native State section) . 5' 6" gauge	44.28	...	44.28	...	...	...	Details include	
6	(c)	Bhopal-Ujjain . . . . . "	113.27	...	113.27	...	...	...	95	...
6	(d)	Bina-Goona-Baran . . . . . "	145.63	...	145.63	...	...	...	92	...
7	(b)	Kolar Gold-fields . . . . . "	9.88	...	9.88	...	...	...	8	...
3	(c)	Nagda-Ujjain . . . . . "	34.32	...	34.32	...	...	...	11	...
8	(a)	Nizam's Guaranteed State . . . . . "	330.13	...	330.13	...	...	...	1.85	...
3	(d)	Petlad-Cambay (Anand-Tarapur section) "	21.50	...	21.50	...	...	...	12	...
3	(e)	Petlad-Cambay (Tarapur-Cambay section) "	10.92	...	10.92	...	...	...	8	...
21	(b)	Birur-Shimoga . . . . . 8' 3 3/4" gauge	37.92	...	37.92	...	...	...	18	...
3	(c)	Geakwar's Mahsana . . . . . "	92.63	...	92.63	...	...	...	14	...
21	(d)	Hindupur (Yesvantpur-Mysore frontier) "	51.35	...	51.35	...	...	...	64	...
3	(e)	Hydrabad-Godavari Valley . . . . . "	391.42	...	391.42	...	...	...	4.20	...
21	(e)	Kothapur . . . . . "	29.27	...	29.27	...	...	...	14	...
21	(f)	Mysore-Nanjangud . . . . . "	15.80	...	15.80	...	...	...	15	...
3	(j)	Palampur-Dessa (Native State section) "	...	...	...	Details included with the British section.			...	...
7	(e)	Shoranur-Cochin . . . . . "	64.75	...	64.75	...	...	...	80	...
3	(h)	Vijapur-Kalol-Kadi . . . . . "	41.37	...	41.37	...	...	...	7	...
3	(m)	Gaekwar's Dabhoi . . . . . 2' 6" gauge	88.00	...	88.00	6.40	...	6.40	37	3
2	(c)	Parlakimedi Light . . . . . "	24.62	...	24.62	...	...	...	4	...
3	(a)	Rajpipla . . . . . "	37.37	...	37.37	...	...	...	15	...
6	(f)	Gwalior Light . . . . . 2' 0" gauge	126.14	...	126.14	57.86	...	57.86	14	16
		<b>Total</b> . . . . .	1,710.57	...	1,710.57	64.35	...	64.35	10.85	19
<b>(c) Worked by State railway agency.</b>										
9	(b)	Jammu and Kashmir (Native State section) 5' 6" gauge	15.92	...	15.92	...	...	...	24	...
9	(c)	Ludhiana-Dhuri-Jakkal . . . . . "	78.66	...	78.66	...	...	...	36	...
9	(d)	Rajpura-Bhatinda . . . . . "	107.05	...	107.05	...	...	...	59	...
4	(e)	Coch-Bekar . . . . . 2' 6" gauge	33.60	...	33.60	...	...	...	11	...
		<b>Total</b> . . . . .	235.23	...	235.23	...	...	...	1.20	...
<b>V.—Lines in Foreign Territory.</b>										
20	(b)	Karaikal-Peraham . . . . . 3' 3 3/4" gauge	14.65	...	14.65	...	...	...	4	...
20	(c)	Pondicherry . . . . . "	7.85	...	7.85	...	...	...	...	...
21	(h)	West of India Portuguese . . . . . "	51.11	...	51.11	...	...	...	91	...
		<b>Total</b> . . . . .	73.61	...	73.61	...	...	...	95	...
<b>VI.—Lines wholly under construction.</b>										
<b>By Private Companies</b>										
23	(a)	Baraset-Basirhat Light . . . . . 2' 6" gauge	...	...	...	25.00	...	25.00	...	...
27	(a)	Dwara-Therria Light . . . . . "	...	...	...	113.50	...	113.50	...	...
		<b>Total</b> . . . . .	...	...	...	389.50	...	389.50	...	...
<b>VII.—By Native States.</b>										
3	(e)	Jaipur (Bawai-Madhopur) . . . . . 3' 3 3/4" gauge	...	...	...	72.85	...	72.85	...	3
25	(a)	Cutch . . . . . "	...	...	...	11.86	...	11.86	...	...
2	(c)	Moharbhauj . . . . . 2' 6" gauge	...	...	...	32.10	...	32.10	...	...
		<b>TOTAL</b> . . . . .	...	...	...	116.81	...	116.81	...	8
		<b>TOTAL PART II</b> . . . . .	5,368.87	...	5,368.87	511.65	...	511.65	58.04	2.20
		<b>GRAND TOTAL</b> . . . . .	25,288.25	1,568.04	26,851.29	2,451.14	0.60	2,451.74	3,05.09	20.25

† The existing line is under conversion to metre gauge.  
‡ Includes the Malong-Therria Ghat section, 6.00 miles, on which commencement of work has not yet been authorized.

DIX 8—continued.  
 in Report for 1902.)  
 1903, distributed over main heads of expenditure.  
 6 to 8 of Report.)

Appendix 8.  
 Capital outlay.

II.—LAND.		III.—FORMATION.		IV.—BRIDGE WORK.		V.—FENCING.		VI.—ELECTRIC TELEGRAPH.		VII.—BALLAST AND PERMANENT-WAY.		VIII.—STATIONS AND BUILDINGS.		IX.—COLLIERY WORKS.	
Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.
64	...	17,82	...	43,67	...	1,02	...	12	...	50,51	...	26,65	...	...	...
2	...	3,99	...	36	...	5	...	21	...	32,91	...	2,29	...	...	...
1	...	64	...	49	...	5	...	...	...	3,36	...	90	...	...	...
...	...	2,41	...	5,24	...	18	...	...	...	3,01	...	2,02	...	...	...
16	...	2,45	...	2,30	...	67	...	...	...	6,82	...	2,28	...	...	...
2	...	6,46	...	2,97	...	4	...	90	...	68,76	...	6,32	...	...	...
...	...	2,89	...	2,24	...	18	...	...	...	9,30	...	1,82	...	...	...
2	...	6,99	†1,99	...	†76	...	...	...	...	11,24	†6	63	...	...	...
87	...	43,15	1,99	57,27	76	2,19	...	1,23	...	1,90,91	6	42,89	...	...	...
with the British section—															
3	...	3,08	...	17,34	...	82	...	29	...	38,34	...	5,09	...	...	...
2	...	13,93	...	21,49	...	2,75	...	2	...	45,27	...	6,22	...	...	...
32	...	...	...	3,49	...	...	...	3	...	5,12	...	1,64	...	...	...
...	...	1,64	...	4,62	...	15	...	...	...	13,06	...	29	...	...	...
...	...	15,88	...	14,21	...	1,97	...	...	...	69,01	...	22,06	...	...	...
...	...	44	...	88	...	29	...	...	...	7,27	...	1,81	...	...	...
...	...	25	...	45	...	15	...	...	...	4,90	...	1,53	...	...	...
21	...	5,66	...	4,54	...	56	...	...	...	3,02	...	2,59	...	...	...
...	...	3,05	...	5,91	...	63	...	...	...	16,81	...	4,73	...	...	...
26	...	5,53	...	5,41	...	65	...	...	...	9,09	...	1,43	...	...	...
...	...	34,00	...	30,25	...	2,24	...	...	...	69,16	...	25,62	...	...	...
31	...	2,69	...	11,23	...	42	...	...	...	4,91	...	2,29	...	...	...
11	...	1,41	...	29	...	28	...	...	...	2,53	...	63	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3,98	...	3,14	...	13,83	...	79	...	10	...	15,07	...	4,32	...	...	...
...	...	23	...	1,62	...	43	...	...	...	6,43	...	1,79	...	...	...
...	...	...	...	...	1	†4,36	2	...	...	10,71	44	2,90	1	...	...
10	...	34	...	1,10	...	6	...	2	...	2,88	...	35	...	...	...
...	...	1,28	...	3,93	...	15	...	1	...	4,51	...	94	...	...	...
...	...	5,30	75	1,44	1,06	6	...	...	...	14,37	7,02	1,79	19	...	...
5,34	...	1,08,05	75	1,43,99	1,07	16,86	2	47	...	3,47,43	7,46	88,69	20	...	...
...	...	35	...	1,35	...	2	...	...	...	5,67	...	1,33	...	...	...
...	...	2,29	...	2,41	...	97	...	...	...	27,95	...	4,48	...	...	...
47	...	2,76	...	5,38	...	2,05	...	...	...	41,58	...	10,85	...	...	...
14	...	1,53	...	4,71	...	2	...	2	...	4,48	...	82	...	...	...
61	...	6,98	...	13,85	...	3,06	...	2	...	79,68	...	17,43	...	...	...
...	...	53	...	72	...	29	...	...	...	3,31	...	1,09	...	...	...
...	...	61,42	...	24,48	...	14	...	75	...	14,77	...	9,34	...	...	...
...	...	61,97	...	25,20	...	43	...	75	...	18,08	...	10,43	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	1,81	...	3,06	...	6	...	...	...	1,18	...	2,05	...	...
...	...	...	1	...	8	...	...	...	...	...	75	...	2	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	1,82	...	3,14	...	6	...	...	...	1,93	...	2,07	...	...
9,60	20	4,21,80	5,50	4,06,15	5,68	96,04	12	14,84	1	11,01,39	17,73	2,88,22	2,91	...	...
4,11,42	37,43	44,32,21	3,46,62	49,19,37	1,11,23	3,99,51	6,73	86,55	8	36,54,75	1,53,37	31,65,85	21,40	25,40	...

the transactions of which do not pass through the Government accounts.  
 † Excludes the Madura District and the Shahdara-Saharanpur Light railways, 93'00 and 125'00 miles, respectively, on which work has not been commenced.  
 ‡ Includes expenditure on open line under the two preceding columns.

Appendix 8.  
Capital outlay.

APPEN

(Appendix 1

Capital outlay in thousands of rupees to the close of the year 1905

(Referred to in paragraph

NUMBER.	Railway.		X.—PLANT.		XI.—ROLLING-STOCK.		XII.—GENERAL CHARGES.		XIII.—EXCHANGE.	
			Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.
		<b>PART I—concluded.</b>								
5	(e)	VI.—Branch line companies' rlys. assisted by Government under "Rebate" terms. South Behar . . . . . 5' 6" gauge	3,84	—	—	—	7,86	—	—	—
8	(j)	Tapti Valley . . . . . "	58	—	—	—	10,20	—	—	—
8	(n)	Ahmedabad-Dholka . . . . . 3' 3½" gauge	6	—	—	—	78	—	—	—
8	(g)	Ahmedabad-Parantij . . . . . "	12	—	—	—	1,60	—	—	—
4	(d)	Mymensingh-Jamalpur-Jagannathganj . . . . . "	25	—	—	—	83	—	—	—
		<b>TOTAL</b> . . . . .	4,85	—	—	—	21,22	—	—	—
		<b>VII.—Lines wholly under construction—By State agency.</b>								
6	(i)	Agra-Delhi Chord . . . . . 5' 6" gauge	—	2,54	—	—	—	2,71	—	—
		Moorshedabad Branch . . . . . "	—	1,09	—	—	—	1,54	—	—
		Quetta-Nushki . . . . . "	—	1,59	—	19	—	1,72	—	—
		<b>TOTAL</b> . . . . .	—	5,22	—	19	—	5,97	—	—
		<b>VIII.—By Companies agency.</b>								
7	(f)	Azhikal-Mangalore . . . . . 5' 6" gauge	—	48	—	—	—	1,50	—	—
21	(i)	Bellary-Rayadrug . . . . . 3' 3½" gauge	—	—	—	—	—	—	—	—
21	(j)	Hospet-Kottur . . . . . "	—	—	—	—	—	—	—	—
20	(f)	Tinnevely-Quilon (Travancore) (Native State section) . . . . . 3' 3½" gauge	—	2,07	—	1	—	9,49	—	—
7	(h)	Morappur-Dharmapuri . . . . . 2' 6" gauge	—	1	—	—	—	25	—	—
7	(i)	Tirupattur-Krishnagiri . . . . . "	—	3	—	—	—	31	—	—
		<b>TOTAL</b> . . . . .	—	2,59	—	1	—	11,55	—	—
		<b>TOTAL PART I</b> . . . . .	5,25,91	25,57	47,01,35	18,46	22,06,01	56,65	1,93,13	—
		<b>PART II—continued.</b>								
		<b>I.—Branch line Companies' railways assisted by Government under "Rebate" terms.</b>								
9	(e)	Southern Punjab . . . . . 5' 6" gauge.	71	—	—	—	15,68	—	—	—
11	(b)	Noakhali (Bengal) . . . . . 3' 3½" gauge.	—	—	—	—	—	—	—	—
		<b>Total</b> . . . . .	71	—	—	—	15,68	—	—	—
		<b>II.—Assisted Companies' lines—</b>								
		<b>(a) Subsidized by the Government of India.</b>								
5	(b)	Delhi-Umballa-Kalka . . . . . 5' 6" gauge.	2,39	—	—	—	9,14	—	12	—
		<b>Total</b> . . . . .	2,39	—	—	—	9,14	—	12	—
		<b>(b) Subsidized by Local Governments.</b>								
17	(a)	Dibru-Sadiya . . . . . 3' 3½" gauge.	5,36	—	19,28	—	17,75	—	—	—
16	(a)	Darjeeling-Himalayan . . . . . 2' 0" gauge.	75	—	6,02	—	—	—	—	—
		<b>Total</b> . . . . .	6,11	—	25,30	—	17,75	—	—	—
		<b>(c) Subsidized by District Boards.</b>								
8	(a)	Pengal Docars . . . . . 3' 3½" gauge	11	—	4,09	—	2,15	—	—	—
5	(a)	Bukhtiarpore-Bihar Light . . . . . 2' 6" gauge.	11	—	2,17	—	—	—	—	—
1	(a)	Ranaghat-Krishnagar Light . . . . . "	38	—	1,88	—	—	—	—	—
4	(a)	Tezpur-Balipara Light . . . . . "	31	—	1,60	—	41	—	—	—
7	(a)	Howrah-Amta Light. . . . . 2' 0" gauge.	76	—	4,62	—	—	—	—	—
8	(a)	Howrah-Sheakhala Light . . . . . "	36	—	1,68	—	—	—	—	—
		<b>Total</b> . . . . .	2,03	—	15,54	—	2,56	—	—	—
		<b>(d) Receiving land only from Government.</b>								
5	(d)	Tarkessur . . . . . 5' 6" gauge.	9	—	—	—	—	—	—	—
2	(a)	Bengal and North-Western . . . . . 3' 3½" gauge	19,88	18	97,21	—	86,42	66	—	—
3	(b)	Bengal Docars extensions . . . . . "	1,82	—	7,89	—	7,18	—	—	—
5	(a)	Deoghur . . . . . "	—	—	—	—	—	—	—	—
2	(b)	Sagauli-Raxaul . . . . . "	23	—	—	—	1,02	—	—	—
1	(a)	Barai Light . . . . . 2' 6" gauge	14	—	4,15	—	99	—	—	—
3	(a)	Kalka Simla . . . . . "	1,28	—	5,00	—	9,90	—	—	—
3	(c)	Powayan Light . . . . . "	4	—	1,42	—	20	—	—	—
		<b>Total</b> . . . . .	23,49	18	1,15,67	—	55,71	66	—	—
		<b>III.—Unassisted companies' lines.</b>								
7	(b)	Ledo and Tikak-Margherita Colliery 3' 3½" gauge.	—	—	—	—	—	—	—	—
3	(a)	Tarakeswar-Magra Light . . . . . 2' 6" gauge.	18	—	1,89	—	—	1	—	—
		<b>Total</b> . . . . .	18	—	1,89	—	—	1	—	—

Note.—Part II includes all railways, the transactions

Appendix 8.  
Capital outlay.

DIX 8—continued.  
in Report for 1902.)  
distributed over main heads of expenditure.  
(to 8 of Report.)

XIV.—SUNDRIES.		XV.—TOTAL.		XVI.— Average cost per mile open.	XVII.—FERRIES, ETC.		XVIII.— SUSPENSE.		XIX.— TOTAL INCLUDING FERRIES AND SUSPENSE.		XX.— Capital unclas- sified outlay.	XXI.— Capital expen- diture on collieries.	XXII.— Total suspense balance.	XXIII.— Grand Total.
Open.	Under construc- tion.	Open.	Under construc- tion.		Open.	Under construc- tion.	Open.	Under construc- tion.	Open.	Under construc- tion.				
1078	...	1,20,02	...	1,52	...	...	...	...	1,20,02	...	...	...	...	...
771	...	1,30,02	...	84	...	...	...	...	1,30,02	...	...	...	...	...
40	...	10,18	...	30	...	...	...	...	10,18	...	...	...	...	...
74	...	19,89	...	36	...	...	...	...	19,89	...	...	...	...	...
...	...	21,82	...	40	69	...	...	...	22,01	...	...	...	...	...
19,57	...	3,01,88	...	80	69	...	...	...	3,02,07	...	...	...	...	...
...	...	...	21,90	...	...	...	...	29,49	...	51,39	...	...	...	...
...	...	...	11,57	...	...	...	...	18,49	...	30,06	...	...	...	...
...	...	...	17,11	...	...	...	...	4,12	...	21,23	...	...	...	...
...	...	...	50,58	...	...	...	...	52,10	...	1,02,68	...	...	...	...
...	...	...	14,42	...	...	...	...	5,60	...	20,02	...	...	...	...
...	...	...	**1,18	...	...	...	...	1	...	1,19	...	...	...	...
...	...	...	**1,98	...	...	...	...	...	...	1,98	...	...	...	...
...	...	...	30,64	...	...	18	...	10,55	...	1,01,37	...	...	...	...
...	...	...	44	...	...	...	...	1,97	...	2,41	...	...	...	...
...	...	...	1,01	...	...	...	...	2,77	...	3,12	...	...	...	...
...	...	...	1,09,07	...	...	18	...	20,24	...	1,29,49	...	...	...	...
427,19	-6	2,90,97,07	7,72,37	1,35	1,51,83	1,49	7,94,92	79,54	2,99,91,97	8,53,40	68,38	14,69	12,64	3,09,41,08
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2,79	...	2,28,21	...	54	...	...	7	...	2,28,28	...	...	...	...	...
...	...	**21,05	...	60	...	...	...	...	21,05	...	...	...	...	...
2,79	...	2,49,26	...	54	...	...	7	...	2,49,33	...	...	...	...	...
11,27	...	1,55,70	...	96	...	...	-20	...	1,55,50	...	...	...	...	...
11,27	...	1,55,70	...	96	...	...	-20	...	1,55,50	...	...	...	...	...
2,67	...	80,60	...	1,04	23	...	1,50	...	82,33	...	...	...	...	...
74,99	...	34,04	...	67	...	...	2,09	...	36,18	...	...	...	...	...
6,96	...	1,14,64	...	89	28	...	3,59	...	1,18,46	...	...	...	...	...
57	...	25,28	...	69	1,67	...	...	...	26,95	...	...	...	...	...
...	...	7,48	...	40	...	...	...	...	7,48	...	...	...	...	...
...	...	7,44	...	37	...	...	...	...	7,44	...	...	...	...	...
...	...	4,87	...	24	...	...	...	...	4,87	...	...	...	...	...
...	...	12,68	20	44	...	...	...	...	12,68	20	...	...	...	...
6	...	6,15	...	31	...	...	...	...	6,15	...	...	...	...	...
63	...	63,90	20	44	1,67	...	...	...	65,57	20	...	...	...	...
16,50	...	17,94	...	81	...	...	...	...	17,94	...	...	...	...	...
21,90	46	5,74,11	13,64	74	21,38	...	7,29	4,69	6,02,76	18,33	...	...	...	...
6,11	...	77,00	...	66	...	...	2,30	...	72,30	...	...	...	...	...
...	...	**3,01	...	63	...	...	...	...	3,01	...	...	...	...	...
28	...	10,08	...	56	...	...	1,08	...	11,16	...	...	...	...	...
...	...	12,47	...	58	...	...	12	...	12,59	...	...	...	...	...
9,02	...	1,37,52	...	2,31	...	...	3,81	...	1,41,33	...	...	...	...	...
...	...	2,76	...	23	...	...	...	...	58,95	...	...	...	...	...
58,81	46	8,34,89	13,64	76	21,38	...	14,60	4,69	8,77,04	18,33	...	...	...	...
...	...	**16,62	...	1,51	...	...	...	...	16,62	...	...	...	...	...
...	...	9,68	16	31	...	...	16	16	9,84	32	...	...	...	...
...	...	26,30	16	62	...	...	16	16	26,46	32	...	...	...	...

of which do not pass through the Government accounts.  
\*\* Details not furnished.

§ Includes (Rs. 6,18,993), expenditure incurred prior to transfer of the working of the line to the Bohilkund and Kumaon Railway Company.

† Includes expenditure under the two preceding columns.

Appendix 8.  
Capital outlay.

APPEN

(Appendix 11)

Capital outlay in thousands of rupees on each railway to the close of the year  
(Referred to in paragraphs

NUMBER.	Main-head.	Sub-head.	Railway.	X.—PLANT.		XI.—ROLLING-STOCK.		XII.—GENERAL CHARGES.		XIII.—EXCHANGE.	
				Open.	Under construction.	Open.	Under construction.	Open.	Under construction.	Open.	Under construction.
<b>Part II—concluded.</b>											
<b>IV.—Native State lines.</b>											
<b>(a) Worked by Native States.</b>											
14	(a)		Bhavnagar-Gondal-Junagadh-Forbandar 3' 3 1/2" gauge.	3,36	...	94,66	...	3,93	...	...	...
18	(b)		Bikaner . . . . .	28	...	8,56	...	74	...	...	...
14	(b)		Dhrangadra . . . . .	8	...	6	...	24	...	...	...
14	(c)		Jamnagar . . . . .	17	...	4,80	...	95	...	...	...
14	(d)		Jetalsar-Rajkot . . . . .	16	...	...	...	83	...	...	...
18	(a)		Jodhpur . . . . .	1,98	...	29,28	...	1,68	...	...	...
22	(a)		Udaipur-Chitot . . . . .	32	...	2,72	...	1,11	...	...	...
30	(a)		Morvi . . . . . 2' 6" gauge.	15	74	3,85	...	1,03	135	...	...
			Total	6,44	4	74,49	...	13,51	85	...	...
<b>(b) Worked by Companies.</b>											
6	(b)		Bhopal-Itami (Native State section) 3' 6" gauge.	...	...	Details included with the British section.		...	...	...	...
6	(c)		Bhopal-Ujjain . . . . .	21	...	...	...	6,96	...	...	...
6	(d)		Bina-Gooma-Baran . . . . .	58	...	16	...	3,18	...	...	...
7	(b)		Kolar Gold-fields . . . . .	8	...	...	...	60	...	...	...
3	(c)		Nagda-Ujjain . . . . .	2	...	...	...	1,70	...	...	...
3	(a)		Nizam's Guaranteed State . . . . .	4,26	...	53,60	...	11,04	...	...	...
3	(d)		Petlad-Cambay (Anand-Tarapur section) . . . . .	4	...	...	...	53	...	...	...
3	(e)		Petlad-Cambay (Tarapur-Cambay section) . . . . .	8	...	...	...	19	...	...	...
21	(b)		Birur-Shimoga . . . . . 2' 3 1/2" gauge.	44	...	...	...	1,63	...	...	...
3	(i)		Gaekwar's Mehsana . . . . .	33	...	45	...	1,73	...	...	...
21	(d)		Hindupur (Yesvantpur-Mysore frontier) . . . . .	36	...	...	...	1,44	...	...	...
8	(c)		Hyderabad-Godavari Valley . . . . .	3,73	...	53,30	...	17,40	...	...	...
21	(e)		Kolhapur . . . . .	7	...	...	...	1,20	...	...	...
21	(f)		Mysore-Nanjangud . . . . .	6	...	...	...	40	...	...	...
3	(j)		Palampur-Doosa (Native State section) . . . . .	...	...	Details included with the British section.		...	...	...	...
7	(e)		Sheranur-Cochin . . . . .	1,59	...	10,24	...	3,77	...	...	...
3	(g)		Vijapur-Kalol-Kadi . . . . . 2' 6" gauge.	9	...	...	...	1,13	...	...	...
3	(m)		Gaekwar's Dabhol . . . . .	10	...	3,83	...	1,52	1	...	...
2	(c)		Parlakimedi Light . . . . .	10	...	1,48	...	64	...	...	...
3	(n)		Rajpipla . . . . .	7	...	1,35	...	65	...	...	...
6	(f)		Gwalior Light . . . . . 2' 0" gauge.	28	7	8,47	1,47	1,31	85	...	...
			Total	12,59	7	1,12,05	1,47	62,02	86	...	...
<b>(c) Worked by State Railway Agency.</b>											
9	(b)		Jammu and Kashmir (Native State section) 3' 6" gauge	5	...	...	...	61	...	...	...
9	(c)		Ludhiana-Dhuri-Jekhal . . . . .	44	...	...	...	2,30	...	...	...
9	(d)		Rajpura-Bhatinda . . . . .	82	...	...	...	2,69	...	...	...
4	(e)		Cooch-Bihar . . . . . 2' 6" gauge.	16	...	1,38	...	82	...	...	...
			Total	1,47	...	1,38	...	6,43	...	...	...
<b>V.—Lines in Foreign Territory.</b>											
20	(b)		Karikkal-Paralam . . . . . 3' 3 1/2" gauge.	9	...	...	...	1,15	...	...	...
20	(c)		Pondicherry . . . . .	...	...	...	...	...	...	...	...
21	(b)		West of India Portuguese . . . . .	2,29	...	7,47	...	13,60	...	...	...
			Total	2,98	...	7,47	...	14,75	...	...	...
<b>VI.—Lines wholly under construction—By Private Companies.</b>											
23	(a)		Baraset-Basirhat Light . . . . . 2' 6" gauge.	...	...	...	...	...	...	...	...
22	(a)		Dwaras-Therria Light . . . . .	...	...	...	...	...	...	...	...
			Total	...	...	...	...	...	...	...	...
<b>VII.—By Native States.</b>											
3	(a)		Jaipur (Siwai-Madhopur) . . . . . 3' 3 1/2" gauge.	...	5	...	...	...	59	...	...
26	(a)		Cutch . . . . .	...	1	...	12	...	5	...	...
3	(c)		Moharbhaj . . . . . 2' 6" gauge.	...	...	...	...	...	...	...	...
			Total	...	6	...	12	...	64	...	...
			TOTAL PART II	58,38	85	8,54,29	1,59	1,99,54	2,52	12	...
			GRAND TOTAL	5,84,29	25,92	50,55,54	20,08	24,05,55	59,17	1,93,25	...

NOTE.—Part II includes all railways, the transactions of  
4 The existing line is under construction for a further amount

\* Includes Rs. 2,50,30,000 paid on account of purchase of this

**DIX 8—concluded.**  
 in Report for 1902.)  
 1903, distributed over main heads of expenditure.  
 6 to 8 of Report.)

**Appendix 8.**  
**Capital outlay.**

XIV.—SUNDRIES.		XV.—TOTAL.		XVI.— Average cost per mile open.	XVII.—FERRIES.		XVIII.—SUSPENSE.		XIX.— TOTAL INCLUDING FERRIES AND SUS- PENSE.		XX.— Capital unclassi- fied outlay.	XXI.— Capital expendi- ture on collieries.	XXII.— Total suspense balance.	XXIII.— GRAND TOTAL.
Open.	Under construc- tion.	Open.	Under construc- tion.		Open.	Under construc- tion.	Open.	Under construc- tion.	Open.	Under construc- tion.				
...	...	1,73,01	—	54	...	...	3,52	...	1,81,53	...	...	...	...	...
...	...	50,66	...	21	...	...	65	...	51,31	...	...	...	...	...
...	...	5,87	...	28	...	...	...	...	5,87	...	...	...	...	...
...	...	23,47	...	46	...	...	11	...	23,58	...	...	...	...	...
...	...	15,79	...	34	...	...	...	...	15,79	...	...	...	...	...
...	...	1,19,31	...	26	...	...	...	...	1,19,31	...	...	...	...	...
...	...	20,66	...	31	...	...	...	...	20,66	...	...	...	...	...
...	...	24,09	†3,31	36	...	...	48	...	24,57	†3,31	...	...	...	...
...	...	4,37,86	3,31	38	...	...	4,78	...	4,42,62	3,31	...	...	...	...
...	...	50,00	...	11,41	...	...	...	...	50,00	...	...	...	...	...
...	...	73,11	...	69	...	...	...	...	73,11	...	...	...	...	...
...	...	99,62	...	68	...	...	...	...	99,62	...	...	...	...	...
...	...	11,36	...	1,15	...	...	26	...	11,62	...	...	...	...	...
...	...	22,41	...	65	...	...	...	...	22,41	...	...	...	...	...
...	...	4,24,39	...	1,29	...	...	5,74	...	4,30,13	...	...	...	...	...
...	...	11,37	...	53	...	...	11	...	11,48	...	...	...	...	...
...	...	7,50	...	69	...	...	...	...	7,50	...	...	...	...	...
...	...	23,83	...	63	...	...	24	...	24,07	...	...	...	...	...
...	...	33,78	...	36	...	...	...	...	33,78	...	...	...	...	...
...	...	24,92	...	49	...	...	5	...	24,97	...	...	...	...	...
83,67	...	2,59,33	...	66	...	...	2,74	...	2,62,07	...	...	...	...	...
...	...	23,26	...	79	...	...	...	...	23,26	...	...	...	...	...
...	...	6,56	...	42	...	...	...	...	6,56	...	...	...	...	...
...	...	1,85	...	124	...	...	...	...	1,85	...	...	...	...	...
...	...	62,39	...	98	86	...	1,16	...	64,41	...	...	...	...	...
...	...	11,84	...	29	...	...	...	...	11,84	...	...	...	...	...
...	...	23,79	52	26	...	...	27	2	23,06	54	...	...	...	...
...	...	7,11	...	29	...	...	...	...	7,11	...	...	...	...	...
...	...	13,04	...	35	...	...	...	...	13,04	...	...	...	...	...
88	...	29,04	11,57	23	...	...	...	1,16	29,04	12,78	...	...	...	...
84,61	...	12,24,50	12,09	72	86	...	10,57	1,18	12,35,93	12,27	...	...	...	...
...	...	9,62	...	60	...	...	...	...	9,62	...	...	...	...	...
...	...	41,20	...	52	...	...	...	...	41,20	...	...	...	...	...
...	...	67,19	...	63	...	...	...	...	67,19	...	...	...	...	...
...	...	14,74	...	44	4	...	13	...	14,91	...	...	...	...	...
...	...	1,32,75	...	56	4	...	13	...	1,32,92	...	...	...	...	...
...	...	7,24	...	49	...	...	...	...	7,24	...	...	...	...	...
...	...	5,69	...	72	...	...	...	...	5,69	...	...	...	...	...
...	...	1,35,77	...	2,66	...	...	1,99	...	1,37,76	...	...	...	...	...
...	...	1,43,70	...	2,02	...	...	1,99	...	1,50,69	...	...	...	...	...
...	...	...	8,24	...	...	...	...	...	...	8,24	...	...	...	...
...	...	...	8,24	...	...	...	...	...	...	8,24	...	...	...	...
...	...	...	8,83	...	...	...	...	5	...	8,88	...	...	...	...
...	...	...	1,04	...	...	...	...	...	...	1,04	...	...	...	...
...	...	...	2,11	...	...	...	...	...	...	2,11	...	...	...	...
...	...	...	11,98	...	...	...	...	5	...	12,03	...	...	...	...
1,17,07	46	33,83,50	49,62	68	24,16	...	35,07	6,08	34,54,52	35,70	†8,08	...	...	35,18,30
3,44,36	40	3,24,85,57	3,21,99	1,21	1,75,99	1,49	3,30,59	85,62	3,34,46,49	3,49,10	76,46	14,69	12,64	3,44,59,38

which do not pass through the Government accounts.

† Details not furnished.

‡ State expenditure on the Patri branch of the Bombay, Baroda and Central India railway.

§ Calculated on the total outlay on the line.





**APPENDICES**  
**OF**  
**STATISTICS.**

Appendix 10.  
Main results.

APPEN

## Main results of working Indian railways

(Referred to in paragraphs

YEAR.	Mileage open.	IN THOUSANDS OF RUPEES.				Gross earnings per mile per week.	Percentage of working expenses to gross earnings.	Percentage of net earnings on Capital outlay on lines wholly and partly open.	PASSENGERS.			Goods.		
		Capital outlay.	Gross earnings.	Working expenses.	Net earnings.				Number carried in thousands.	Earnings in thousands of rupees.	Average rate charged per mile in pies.	Quantity carried in thousands of tons.	Earnings in thousands of rupees.	Average rate charged per ton per mile in pies.
1853	20	37,96	90	41	49	87	45.56	1.29	---	---	---	---	---	---
1854	71	4,00,00	2,81	1,42	89	63	61.47	0.22	---	---	---	---	---	---
1855	169	5,50,00	8,13	4,55	3,58	93	55.97	0.65	---	---	---	---	---	---
1856	273	8,00,00	16,10	6,74	3,26	114	41.87	1.17	---	---	---	---	---	---
1857	267	12,00,00	25,43	10,51	14,89	179	41.45	1.24	---	---	---	---	---	---
1858	427	16,00,00	33,82	15,63	18,19	152	46.22	1.14	---	---	---	---	---	---
1859	685	22,50,00	57,24	27,74	29,50	178	48.46	1.31	---	---	---	---	---	---
1860	638	26,65,00	66,67	37,08	39,59	153	55.61	1.11	---	---	---	---	---	---
1861	1,587	34,00,00	98,68	58,09	40,54	120	58.90	1.19	---	---	---	---	---	---
1862	2,333	48,00,00	1,34,45	80,82	54,13	111	59.74	1.13	---	---	---	---	---	---
1863	2,507	53,00,00	2,20,47	1,33,04	87,43	109	60.34	1.65	---	---	---	---	---	---
1864	2,958	58,00,00	2,85,29	1,70,85	1,15,04	186	59.76	1.93	---	---	---	---	---	---
1865	3,363	63,00,00	4,25,84	2,24,27	2,01,57	244	52.43	3.20	---	---	---	---	---	---
1866	3,563	70,00,00	4,91,91	2,59,38	2,32,53	266	52.73	3.32	---	---	---	---	---	---
1867	3,929	80,00,00	5,44,54	2,93,76	2,50,78	266	53.95	3.13	---	---	---	---	---	---
1868	4,008	84,00,00	5,67,09	3,07,46	2,52,63	272	54.22	3.09	---	---	---	---	---	---
1869	4,255	89,00,00	6,18,10	3,41,74	2,71,36	277	55.74	3.05	---	---	---	---	---	---
1870	4,771	90,00,50	6,66,67	3,63,15	3,03,32	269	54.47	3.37	---	---	---	---	---	---
1871	5,074	90,00,70	6,59,20	3,67,97	2,91,23	250	55.82	3.24	19,283	2,02,49	---	3,542	4,20,06	---
1872	5,369	90,00,90	6,82,96	3,73,45	3,02,51	245	54.68	3.44	20,847	2,17,66	---	3,535	4,12,70	14.87
1873	5,697	91,72,80	7,22,90	3,77,85	3,45,05	244	52.28	3.75	22,835	2,39,41	---	4,078	4,68,22	14.10
1874	6,226	95,87,15	8,23,77	4,03,89	4,29,88	238	48.44	4.48	24,977	2,38,98	---	5,508	5,75,30	10.01
1875	6,541	1,00,96,28	7,91,37	3,97,48	3,93,89	233	50.23	3.90	27,479	2,68,32	---	5,095	5,12,56	10.87
1876	6,860	1,04,77,85	9,33,83	4,46,45	4,87,38	232	47.81	4.65	31,353	3,16,61	---	6,613	5,74,04	8.48
1877	7,320	1,09,04,24	12,11,28	5,38,68	6,72,60	318	44.47	6.17	35,104	3,29,38	---	9,272	9,04,23	8.82
1878	8,201	1,18,29,55	11,25,30	5,62,28	5,82,92	269	49.97	4.76	39,458	3,37,87	---	8,320	7,28,95	8.75

DIX 10.

Appendix 10.  
Main results.

as one system from the commencement.

(17, 18 and 22 of Report.)

YEAR.	Mileage open.	IN THOUSANDS OF RUPEES.				Gross earnings per mile per week.	Percentage of working expenses to gross earnings.	Percentage of net earnings on capital outlay on lines wholly and partly open.	PASSENGERS.			Goods.		
		Capital outlay.	Gross earnings.	Working expenses.	Net earnings.				Number carried in thousands.	Earnings in thousands of rupees.	Average rate charged per mile in pies.	Quantity carried in thousands of tons.	Earnings in thousands of rupees.	Average rate charged per ton per mile in pies.
1879	8,475	1,22,32,97	12,08,15	6,26,28	5,81,57	275	51.84	4.76	44,050	3,65,86	...	8,968	7,80,61	8.65
1880	8,098	1,29,56,91	12,86,55	6,48,00	6,38,55	282	50.37	4.97	49,155	4,57,29	...	10,394	9,22,63	9.68
1881	9,858	1,40,80,90	14,32,31	7,07,12	7,25,19	285	49.37	5.16	54,764	3,79,23	2.78	13,214	9,55,97	7.95
1882	10,069	1,43,24,42	15,35,23	7,56,81	7,68,42	294	49.95	5.36	58,876	4,08,37	2.71	14,833	10,15,97	7.91
1883	10,447	1,48,30,56	16,58,94	7,97,05	8,41,89	301	48.62	5.68	65,699	4,09,08	2.60	16,999	11,28,89	7.80
1884	11,527	1,55,45,04	16,05,62	8,15,62	7,91,00	276	50.76	5.09	73,815	4,46,84	2.56	16,663	10,56,59	7.85
1885	12,208	1,61,91,78	17,98,96	8,86,33	9,12,63	284	49.27	5.64	80,865	4,78,12	2.52	18,925	11,91,54	6.89
1886	12,845	1,70,49,89	18,70,48	8,93,10	9,77,96	293	47.75	5.73	88,436	5,09,77	2.51	19,576	12,38,59	7.02
1887	14,068	1,82,87,93	18,46,91	9,10,38	9,36,48	280	49.31	5.12	95,412	5,35,32	2.51	20,196	11,92,93	7.17
1888	14,525	1,93,04,33	19,76,45	9,87,44	9,89,01	288	49.96	5.12	103,156	5,69,06	2.71	22,393	12,79,04	6.87
1889	15,900	2,05,04,61	20,49,37	10,37,74	10,11,63	257	50.64	4.93	110,650	6,13,74	2.32	22,249	13,05,56	6.83
1890	16,404	2,13,67,04	20,67,01	10,30,89	10,86,12	248	49.87	4.85	114,062	6,25,81	2.51	22,613	12,99,52	7.11
1891	17,283	2,21,06,42	24,04,03	11,30,39	12,73,64	271	47.02	5.76	122,855	6,86,13	2.52	26,159	15,60,81	6.75
1892	17,769	2,27,50,00	23,22,93	10,90,35	12,32,58	258	46.94	5.42	127,368	6,91,15	2.52	26,335	14,77,52	6.70
1893	18,459	2,33,17,87	24,08,42	11,34,77	12,73,65	254	47.12	5.46	135,520	7,29,57	2.50	28,847	15,21,63	6.60
1894	18,840	2,37,79,01	25,50,89	11,98,40	13,52,49	262	46.98	5.69	145,727	7,57,58	2.56	32,644	16,24,82	6.42
1895	19,437	2,44,38,05	26,23,69	12,11,99	14,11,70	261	46.19	5.78	153,081	8,02,21	2.49	33,628	16,36,94	6.36
1896	20,209	2,52,95,23	25,36,14	12,19,84	13,22,30	245	47.86	4.92	159,509	8,22,07	2.45	32,471	15,41,51	6.45
1897	21,115	2,62,12,04	25,60,11	12,47,73	13,12,38	233	48.74	4.65	150,584	7,62,13	2.47	33,926	15,88,89	6.36
1898	22,024	2,92,09,20	27,41,31	12,98,68	14,49,68	244	47.37	4.94	151,566	7,58,68	2.50	35,642	17,84,97	6.00
1899	23,507	3,08,59,12	29,36,78	13,93,36	15,43,42	246	47.45	5.00	161,720	8,09,39	2.51	39,748	19,19,82	5.98
1900	24,704	3,29,53,34	31,54,32	15,09,31	16,45,01	250	47.85	4.99	176,308	8,95,07	2.51	42,896	20,36,52	5.83
1901	25,832	3,39,16,89	33,60,38	15,72,45	17,87,93	255	46.79	5.27	194,749	10,07,17	2.48	43,392	21,23,67	5.77
1902	25,898	3,49,77,34	33,92,69	16,70,49	17,22,20	254	49.24	4.92	198,648	10,27,43	2.51	45,537	21,23,41	5.68
1903	26,851	3,41,11,23	36,00,83	17,11,09	18,89,73	257	47.53	5.54	210,231	10,98,14	2.51	47,684	22,41,92	5.64

showing the capital outlay on railways purchased by the State from Guaranteed Railway Companies.

Appendix 11.  
Summary of general results.

APPEN  
(Appendix 12)  
Summary of the general  
Indian Railways  
(Referred to in paragraphs

GENERAL RESULTS

Calendar year.	Total mileage open on 31st December.	Mean mileage worked.	Total Capital outlay in thousands of rupees.	Gross earnings in thousands of rupees.	TOTAL WORKING EXPENSES.	
					Amount in thousands of rupees.	Proportion per cent. to gross earnings.
1	2	3	4	5	6	7
1899 . . . . .	23,507 (II)	22,847	3,08,50,12	29,36,78	19,93,36	47.45
1900 . . . . .	24,704 (I)	24,115	3,29,53,34	31,54,32	15,09,31	47.65
1901 . . . . .	25,332 (VII)	25,279	3,39,16,69	33,60,88	15,72,45	46.79
1902 . . . . .	25,898 (VI)	25,571	3,49,77,34	33,92,69	16,70,49	49.24
1903 . . . . .	26,851 (***)	26,618	3,41,11,23†††	36,00,82	17,11,09	47.52

GROSS EARNINGS IN THOUSANDS

Calendar year.	COACHING TRAFFIC.						GOODS			
	1st class.	2nd class.	Inter- mediate class.	3rd class.	Season and vendors' tickets.	Other Coaching Traffic.	Total Coaching Traffic (sum of 15 to 23).	Total Goods Traffic (sum of 26 to 30).	General merchan- dise.	Coal and coke for the public and foreign railways.
17	18	19	20	21	22	23	24	25	26	27
9 . . . . .	31,52	46,97	52,08	6,70,81	8,01	1,18,19	9,22,58	19,19,82	16,10,55	1,80,41
0 . . . . .	31,83	47,08	56,03	7,51,66	8,47	1,31,37	10,26,44	20,36,52	16,90,35	2,11,71
1 . . . . .	32,78	52,43	64,39	8,48,25	9,82	1,34,71	11,41,88	21,23,67	17,53,14	2,35,01
2 . . . . .	33,57	56,59	67,60	8,54,97	9,75	1,47,60	11,75,08	21,23,41†††	17,40,72	2,26,75
3 . . . . .	41,56	58,13	71,68	9,16,31	10,46	1,56,26	12,54,40	22,41,92†††	18,53,45	2,29,93

Number of passengers and quantity of goods carried, the average miles

Calendar year.	Total mileage open on 31st Decem- ber.	PASSENGERS CARRIED IN THOUSANDS, THE AVERAGE MILES CARRIED AND											
		1ST CLASS.			2ND CLASS.			INTERMEDIATE CLASS.			3RD CLASS.		
		No.	Average miles carried. ‡	Average rate charged per mile in pies. ‡	No.	Average miles carried. ‡	Average rate charged per mile in pies. ‡	No.	Average miles carried. ‡	Average rate charged per mile in pies. ‡	No.	Average miles carried. ‡	Average rate charged per mile in pies. ‡
1	2	3	4	5	6	7	8	9	10	11	12	13	14
.	23,507	526	71.78	12.89	2,252	43.90	5.32	5,233	60.53	3.07	140,321	37.53	2.30
.	24,704	521	74.05	12.69	2,235	44.04	5.49	5,703	58.93	3.11	153,954	39.16	2.31
.	25,332	532	92.62	12.75	2,405	76.27	5.49	6,670	59.74	3.09	170,416	41.27	2.31
.	25,898	563	102.28	12.66	2,590	82.39	5.21	6,813	61.30	3.11	171,716	41.08	2.33
.	26,943	594	101.71	13.21	2,590	78.13	5.54	7,214	61.64	3.09	184,292	40.24	2.33

\* Excludes railways wholly under construction.  
 † This column represents the percentage of net  
 ‡ Including season and vendors' tickets for 1899 and  
 \*\* Included in the several classes up to 1900.  
 †† Includes miscellaneous train-mileage.  
 ‡ "Other expenses" includes Steam-boat, Contribu-  
 Excludes the Cherra-Companyganj and Thaton-  
 Excludes the Thaton-Duyinzaik and Powayan  
 ††† Excludes the Thaton-Duyinzaik and Parlakimedi  
 \*\* Excludes the Thaton-Duyinzaik Light railway and  
 ††† The decrease is due to the revision of the Capital  
 ††† Excludes Rs. 5,74,000 of the Cawnpore-Burhwal  
 †† Includes the total

## Appendix 11. Summary of general results.

**DIX 11.**  
In Report for 1902.)  
results of working.  
treated as one system.  
(17, 18, 23 and 25 of Report.)

### OF WORKING.

NET EARNINGS.		PER MILE WORKED (EXCLUDING STEAM-BOAT).			PER TRAIN-MILE (EXCLUDING STEAM-BOAT).			Calendar year.
Amount in thousands of rupees.	Percentage on Capital outlay.†	Gross earnings.	Working expenses.	Net earnings.	Gross earnings.	Working expenses.	Net earnings.	
9	9	10	11	12	13	14	15	16
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
15,43,42	5.00	12,788	6,055	6,733	3.78	1.79	1.99	1899
16,45,01	4.99	13,007	6,204	6,803	3.73	1.78	1.95	1900
17,87,93	5.27	18,286	6,179	7,057	3.79	1.77	2.02	1901
17,22,20	4.92	13,188	6,472	6,716	3.65	1.79	1.86	1902
18,89,73	5.54	13,461	6,371	7,090	3.73	1.77	1.96	1903

### OF RUPEES.

TRAFFIC.			WORKING EXPENSES IN THOUSANDS OF RUPEES.								Calendar year.
Military stores.	Revenue stores, including coal and material for construction.	Miscellaneous.	Electric telegraph.	Steam-boat and sundries.	Engineering.	Locomotive.	Carriage and wagon.	Traffic.	General.	Other expenses. §	
28	29	30	31	32	33	34	35	36	37	38	39
13,11	94,11	21,64	3,70	35,68	3,42,50	4,71,44	1,33,99	2,30,68	1,42,38	72,33	1899
13,78	93,32	27,36	7,93	33,43	3,61,79	5,26,50	1,39,31	2,49,37	1,47,43	85,01	1900
14,97	96,41	24,14	7,49	37,34	3,55,93	5,59,13	1,51,90	2,63,92	1,57,85	83,7255	1901
21,67	1,14,93	25,08	7,32	36,88	3,89,67	5,78,85	1,76,83	2,73,70	1,63,70	83,19	1902
23,07	1,13,90	27,31	7,34	36,66	3,88,99	6,11,95	1,52,51	2,92,19	1,68,91	96,5455	1903

carried and the average rate charged, and the train-mileage run by railways in India.

THE AVERAGE RATE CHARGED.			TRAIN-MILES RUN (IN THOUSANDS).				GOODS TRAFFIC.			Calendar year.		
SEASON AND VENDORS' TICKETS.			TOTAL NO. OF PASSENGERS CARRIED.		Coaching.	Goods.	Mixed.	Total train-mileage. (†)	Tons carried (in thousands).		Average miles carried.	Average rate charged per mile in pies.
No.	Average miles carried.	Average rate charged per mile in pies.	No.	Average miles carried.								
15	16	17	18	19	20	21	22	23	24	25	26	27
13,238	**	**	161,720	38.48	17,039	30,612	26,869	77,207	39,748	155.15	5.98	1899
13,945	**	**	176,308	40.09	16,114	31,252	23,327	84,193	42,896	154.94	5.88	1900
14,723	8.63	1.41	191,749	40.42	19,701	34,274	31,561	98,265	43,392	162.73	5.77	1901
15,026	8.85	1.41	196,648	40.03	21,708	36,019	31,781	92,527	45,537	157.54	5.63	1902
15,531	8.75	1.43	210,231	39.90	25,889	36,306	31,438	95,960	47,684	159.93	5.64	1903

but includes the State outlay on the Patri branch, vide paragraph 6 of Report.  
earnings on capital outlay, but does not represent the gain or loss to the State, for which information Appendix 13 should be consulted.  
1900.

tion to Provident Fund and Special and Miscellaneous expenditure.  
Dayinsalk Light railways.

Light railways.

Light railways.

the Damohara-Lauding section of the Assam-Bengal railway.

outlay hitherto adopted for lines purchased by the State from Guaranteed Railway Companies.

metre gauge link cross traffic included in the subsequent details, taken to credit under "Sundry" earnings of the Oudh and Rohilkhand State railway.

Light railway, details of which are not available.

Appendix 12.  
General results.

[Appendices 13, 22 to 27  
General results of working  
Referred to in para

Main head.	Sub-head.	Railway including branches worked.	MEAN MILEAGE WORKED.					COACHES.					GOODS.					REVENUE.		
			1900.	1901.	1902.	1903.	1904.	1900.	1901.	1902.	1903.	1904.	1900.	1901.	1902.	1903.	1904.	1900.	1901.	
			Miles.	Miles.	Miles.	Miles.	Miles.													
		5' 6" gauge.																		
2	(a)	Bengal Central	130 00	130 00	130 00	130 00	130 00	6,04	7,16	7,71	7,70	7,50	8,20	8,20	6,00	6,00	6,00	6,00	2	2
	(a), (b) & (c)	Bengal-Nagpur	1,100 00	1,200 11	1,200 00	1,200 00	1,277 00	25,00	24,20	24,20	24,10	24,20	24,00	24,00	24,00	24,00	24,00	24,00	24,00	24,00
	(a), (b) & (c)	Bombay, Baroda and Central India.	800 00	770 00	700 00	700 00	800 00	20,00	20,00	20,00	20,00	20,00	1,20,00	1,20,11	1,20,00	1,20,00	1,10,00	1,10,00	20	20
	(a), (b) & (c)	Eastern Bengal State	200 00	200 00	200 00	200 00	200 00	20,00	20,00	20,00	20,00	20,00	20,11	20,10	20,00	20,00	20,00	20,00	20	20
	(a), (b) & (c)	East Coast	700 00	700 00	700 00	700 00	700 00	21,00	21,00	21,00	21,00	21,00	21,00	21,00	21,00	21,00	21,00	21,00	21	21
	(a) to (d)	East India	1,570 00	1,510 00	1,300 00	1,300 00	1,500 00	100,00	110,00	110,00	110,00	110,00	110,00	110,00	110,00	110,00	110,00	110,00	1,10	1,10
	(a)	Great Indian Peninsula	1,000 00	1,000 00	1,000 00	1,000 00	1,000 00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20	20
	(a) to (f)	Indian Midland	1,110 00	1,100 00	1,100 00	1,100 00	1,100 00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20	20
	(a) to (c)	Katras	200 00	200 00	200 00	200 00	200 00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20	20
	(a) & (b)	Kann's Guaranteed State	200 00	200 00	200 00	200 00	200 00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20	20
	(a) to (d)	North Western State - Commercial	1,000 00	1,000 00	1,000 00	1,000 00	1,000 00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10	10
	(a) to (c)	Military	1,000 00	1,000 00	1,000 00	1,000 00	1,000 00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10	10
	(a) to (c)	Oudh and Rohilkhand State	1,000 00	1,000 00	1,000 00	1,000 00	1,000 00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10	10
		3' 6" gauge.																		
	(a) & (b)	Assam-Bengal	400 00	400 00	400 00	400 00	400 00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20	20
	(a) to (c)	Bengal and North-Western	1,000 00	1,000 00	1,000 00	1,000 00	1,000 00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20	20
	(a) & (b)	Bengal Doon	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(a) to (d)	Bharuwan-Gandak-Jamunad	400 00	400 00	400 00	400 00	400 00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20	20
	(a)	Burma	200 00	200 00	200 00	200 00	200 00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20	20
	(a)	Dagpur	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(a) & (b)	Dibru-Gadiya	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(b) to (c)	Eastern Bengal State	400 00	400 00	400 00	400 00	400 00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20	20
	(c)	Hydrabad-Godavari Valley	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(a) to (c)	Jodhpur-Bikaner	400 00	400 00	400 00	400 00	400 00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20	20
	(d) & (e)	Kilgiri and Shannur-Cochin.	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(b), (c) to (f)	Rajputana-Malwa	1,000 00	1,000 00	1,000 00	1,000 00	1,000 00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20	20
	(a) & (b)	Rohilkhand and Kumaon	200 00	200 00	200 00	200 00	200 00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20	20
	(a) to (c)	South Indian	1,000 00	1,000 00	1,100 00	1,100 00	1,200 00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20	20
	(a) to (b)	Southern Mahratta	1,000 00	1,000 00	1,000 00	1,000 00	1,000 00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20	20
	(a)	Udaipur-Chitar	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
		West of India Portuguese	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
		2' 6" Gauge.																		
	(a)	Barsi Light	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(a)	Bokhtarypore-Bihar Light	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(a)	Kalka-Simla	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(a)	Marsi	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(a)	Parikhmed Light	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(a)	Powayan Light	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(a)	Ranaghat-Krishnagar Light	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(a)	Tankachwar-Nagra Light	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(a)	Udaipur-Bali Light	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
		3' 0" gauge.																		
	(a)	Darjeling-Himalayan	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(a)	Howrah-Anta Light	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(a)	Howrah-Sheekhola Light	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
	(a)	Jorhat	20 00	20 00	20 00	20 00	20 00	20	20	20	20	20	20	20	20	20	20	20	20	20
		TOTAL	21,500 00	21,114 00	20,270 00	20,070 00	20,817 00	2,200 00	2,200 00	2,200 00	2,200 00	2,200 00	2,200 00	2,200 00	2,200 00	2,200 00	2,200 00	2,200 00	2,200 00	2,200 00

\* Transferred partly to the Bengal-Nagpur railway and partly to the Madras railway from the 1st January 1901.  
 † Included with the Great Indian Peninsula railway.  
 ‡ Included with the Southern Mahratta railway from 1902.



DIX 12.

and Appendix 44 (portion) in Report for 1902.]  
each railway system.  
graphs 17, 18, 22 and 25 of Report.)

IN THOUSANDS OF RUPEES.

TELEGRAPH.			SUNDRIES.					TOTAL.															Number.				
1902.	1903.	1904.	1902.	1903.	1904.	1905.	1906.	1907.	1908.			1909.			1910.			1911.			1912.						
									Amount.	Per mean mile worked.	Per train mile.	Amount.	Per mean mile worked.	Per train mile.	Amount.	Per mean mile worked.	Per train mile.	Amount.	Per mean mile worked.	Per train mile.	Amount.	Per mean mile worked.		Per train mile.	Amount.	Per mean mile worked.	Per train mile.
									Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
1	2	3	1.00	89	1.80	1.11	1.17	11.40	8,208	3'78	13.33	9,601	3'14	14.06	10,118	3'75	13.17	9,464	3'58	15.09	10,861	3'24	1				
2	27	32	5.33	3.61	5.90	5.39	7.04	90.78	7,883	3'90	1.29	10,776	3'91	1,30,78	8,134	3'54	1,42,06	8,854	3'31	1,55,19	8,730	3'36	2				
3	45	44	3.32	64	3.13	3.92	3.58	1,62,07	26,444	6'06	1,89,92	24,315	5'81	1,70,58	21,661	6'12	1,71,20	23,104	6'32	1,83,76	23,853	6'47	3				
4	18	16	4.67	4.83	5.15	5.74	5.69	90.27	33,774	4'50	96.09	35,849	4'69	94.44	35,234	4'61	1,03,69	37,870	4'77	1,02,22	36,779	4'74	4				
5	6	6	1.58	*	*	*	*	42.68	5,425	2'86	59.97	7,894	3'20	*	*	*	*	*	*	*	*	*	*	*	*		
6	91	85	7.25	7.44	8.08	8.04	9.43	6,62,74	33,127	4'40	7,03,79	33,265	4'35	7,23,44	34,672	4'33	7,02,04	32,616	4'16	7,24,28	32,984	4'46	5				
7	71	77	7.43	4.99	3.23	3.15	3.10	3,62,64	24,613	3'79	2,46,32	22,859	3'65	4,18,15	19,154	4'19	4,24,25	19,619	3'71	4,63,69	29,666	3'78	6				
8	19	21	1.42	1.57	1.43	77	1.69	79.68	7,211	3'50	1,12,17	8,977	3'91	1,90,62	†	3'38	1,09,63	†	†	1,00,22	†	†	†	†	6		
9	21	21	2.26	2.25	2.85	5.06	5.26	1,07,73	12,680	4'00	1,12,29	13,222	4'03	1,62,73	13,910	3'49	1,66,04	11,963	3'61	1,73,47	12,395	3'74	7				
10	16	17	98	72	1.16	1.82	1.65	44.23	12,448	4'04	52.69	14,853	4'49	43.55	12,223	4'37	46.96	12,240	4'65	46.26	13,041	4'65	8				
11	91	88	7.74	8.20	7.82	5.24	5.73	3,44,75	13,738	3'24	3,06,29	11,964	3'72	4,14,63	15,539	3'98	4,17,89	15,589	3'76	4,89,74	18,123	3'79	9				
12	15	17	42	41	42	32	37	30.34	3,000	2'34	32.08	3,114	2'38	38.17	3,554	2'32	37.09	3,468	2'00	38.99	3,368	1'85	10				
13	53	56	10.63	12.65	10.73	11.85	13.01	1,11,99	10,811	3'50	1,16,76	10,716	3'43	1,34,68	11,861	3'30	1,34,18	11,838	3'13	1,42,13	11,969	3'22	10				
14	15	18	31	35	65	1.37	1.51	16.20	3,917	2'65	16.98	3,697	2'84	21.14	3,651	3'23	20,79	3,623	2'74	24.09	3,678	2'82	11				
15	33	37	2.72	3.36	3.12	4.03	3.85	72.02	6,805	2'54	75.06	6,802	2'45	90.79	7,206	2'67	94.83	7,410	1'63	1,11,09	6,383	2'79	12				
16	1	1	3	17	35	40	43	2.90	7,144	6'84	3.34	5,500	5'69	4.72	4,499	3'78	5.12	4,432	3'79	6.42	4,892	2'97	13				
17	14	17	45	44	35	31	36	22.43	4,927	3'65	23.63	5,192	3'44	18.96	4,166	3'62	18.85	3,700	3'43	19.54	4,290	3'61	14				
18	27	23	1.03	1.26	1.50	1.63	2.07	67.99	9,326	2'99	1,09,91	10,134	3'22	1,18,45	10,351	3'30	1,24,71	10,550	3'33	1,35,77	10,260	3'14	15				
19	11	10	10	10	10	1	1	33	4,044	2'38	35	7,288	2'27	46	10,082	3'18	30	6,213	2'94	41	8,559	2'56	16				
20	15	16	20	25	22	25	26	9.22	10,843	3'21	9.67	11,371	4'27	9.99	11,287	3'91	9.10	10,234	4'24	9.78	11,629	4'46	17				
21	15	15	69	92	64	72	93	61.91	9,662	3'12	72.21	10,218	3'19	79.26	9,901	3'02	74.77	10,042	3'20	79.10	10,339	3'17	18				
22	9	9	1	36	1.32	1.40	75	63	2,467	2'86	19.63	3,057	2'33	29.10	5,164	3'06	22.86	5,245	2'84	22.14	5,639	2'66	19				
23	22	29	1	3	18	35	41	20.34	4,642	3'68	18.22	3,961	2'91	22.33	3,060	3'08	25.62	3,164	2'64	27.44	3,329	2'67	20				
24	1	1	1	1	1	3	4	84	9,120	3'30	1.78	10,416	5'18	2.41	14,280	6'78	4.44	8,117	4'48	6.28	7,691	4'27	21				
25	66	63	4.03	3.65	4.49	4.19	4.65	2,97,26	13,597	3'93	2,99,16	15,124	3'97	2,81,69	14,007	4'00	2,65,04	13,465	3'98	2,33,74	11,885	3'34	22				
26	8	7	7	2.06	1.94	59	88	60	17.38	6,169	3'00	16.91	6,046	2'92	17.57	6,373	2'91	19.61	6,698	5'85	18.16	6,485	2'89	23			
27	25	29	1.09	1.39	3.01	1.32	3.33	67.90	7,991	2'61	91.95	8,299	2'83	1,05,28	9,481	3'15	1,10,10	9,473	3'11	1,28,85	10,318	3'37	24				
28	24	29	1.40	1.68	1.37	1.41	1.26	75.97	4,655	3'68	66.89	5,449	2'49	81.12	5,086	2'51	93.17	5,660	2'56	95.58	5,806	2'68	25				
29	1	1	1	3	...	...	1	2	2.11	3,337	4'12	3.13	4,724	4'83	2.22	3,333	4'30	2.17	3,230	4'18	1.78	2,643	3'43	26			
30	6	†	†	20	20	1.30	†	†	4.15	1,121	4'01	2.54	4,972	3'02	3.68	5,383	3'00	†	†	†	†	†	†	†			
31	...	...	...	3	3	2	2	3	1.56	7,331	6'73	1.24	5,764	7'28	1.68	7,792	6'60	1.80	6,960	6'17	1.30	6,053	7'86	27			
32	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	36	3,870	2'65	28			
33	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	32	3,708	2'31	29			
34	4	4	4	1	...	2	7	1	4.20	4,436	2'30	4.23	4,496	1'88	3.59	3,901	2'15	3.05	3,233	2'03	2.93	3,159	2'09	30			
35	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	676	0'91	3			
36	...	...	...	...	...	2	2	...	...	...	...	...	...	...	67	1,993	1'16	76	1,916	1'23	72	1,818	...	19			
37	...	...	...	...	...	1	1	...	66	3,671	1'64	69	3,422	2'23	69	3,413	2'31	76	3,762	2'19	86	4,289	2'66	31			
38	...	...	...	1	1	1	1	...	66	2,139	0'92	77	2,461	0'99	83	2,671	0'97	84	2,798	0'97	85	2,749	1'00	32			
39	2	2	2	4	5	6	8	8	85	4,758	2'68	90	4,709	2'95	84	4,199	2'57	85	4,250	2'56	95	4,737	2'87	34			
40	3	3	4	7	8	8	10	11	7.15	14,019	4'34	8.09	15,866	4'29	7.89	15,453	4'19	8.50	16,672	4'57	9.63	18,858	4'03	36			
41	...	...	...	...	...	1	...	...	2.51	8,792	3'61	2.56	8,959	3'42	2.61	9,081	3'24	2.88	9,254	3'60	2.77	9,671	3'72	37			
42	...	...	...	...	...	...	1	...	78	8,875	2'10	78	3,849	2'25	79	3,979	2'19	82	4,153	2'39	87	4,408	2'49	38			
43	...	1	1	...	2	1	1	2	97	8,718	3'20	87	3,276	3'21	83	3,923	2'41	87	2,988	1'60	91	3,054	1'74	39			
44	7.46	7.22	7.94	63.51	66.25	71.81	71.06	78.02	29,19.61	12,796	3'78	31,37.14	12,997	3'73	33,44.86	12,336	3'79	32,76.67	12,188	3'65	35,33.08	12,461	3'73				

Appendix 12.  
General results.

APPEN  
[Appendices 13, 22 to 27  
General results of working  
(Referred to in para

NUMBER.		Railway including branches worked.	GROSS EARNINGS IN THOUSANDS OF RUPEES—concl'd.										WORKING							
			STEAM-BOAT.					GRAND TOTAL.					MAINTENANCE							
			1899.	1900.	1901.	1902.	1903.	1899.	1900.	1901.	1902.	1903.			1899.		19			
Main head.	Sub-head.	1st half.	2nd half.	Total.	Amount.	Proportion per cent on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent on gross earnings.						
		5 '6" gauge.																		
1	(a)	Bengal Central	...	...	...	...	11,40	13,33	14,05	13,17	6,20	6,69	15,09	1,80	15'02	1,298	0'44	1,00	14'23	
2	(a), (b) & (d)	Bengal-Nagpur	...	...	12	29	90,73	1,29,75	1,30,78	1,42,18	83,27	72,21	1,55,46	12,62	13'80	1,088	0'54	12,20	9'40	
3	(a), (e) to (f) & (m) & (n)	Bombay, Baroda and Central India.	...	...	...	...	1,82,07	1,88,92	1,70,58	1,71,20	1,06,53	77,23	1,83,76	31,00	12'03	3,184	0'73	27,71	14'67	
4	(a)	Eastern Bengal State	26	7	...	...	90,53	96,16	94,44	1,03,63	39,71	63,51	1,02,22	13,72	15'16	5,134	0'68	13,28	13'80	
		East Coast	74	51	*	*	43,42	60,48	*	*	*	*	*	6,97	16'05	896	0'47	9,02	14'91	
5	(a) to (d)	East Indian	2,33	2,69	2,04	2,30	2,24	6,55,07	7,06,48	7,30,48	7,04,34	3,76,59	3,80,04	7,26,63	54,12	8'26	2,798	0'37	63,84	9'39
6	(a)	Great Indian Peninsula	...	...	...	...	3,62,54	3,46,32	4,18,15	4,24,25	2,81,99	1,86,70	4,68,69	40,62	11'34	2,724	0'43	29,97	9'65	
6	(b) to (f)	Indian Midland	...	...	...	...	79,88	1,13,17	1,00,02	1,09,63	59,06	41,27	1,00,33	9,63	12'06	870	0'42	10,70	9'46	
7	(a) to (c)	Madras	...	...	...	...	1,07,73	1,13,39	1,62,73	1,66,04	90,47	83,00	1,73,47	12,03	11'17	1,403	0'45	13,99	13'34	
8	(a) & (b)	Nizam's Guaranteed State	...	...	...	...	44,23	52,69	43,55	46,96	24,58	19,88	46,26	4,73	10'67	1,330	0'49	7,96	15'16	
9	(a) to (k)	North Western State:—																		
		Commercial	18	17	10	5	3	3,44,93	3,08,48	4,14,73	4,17,94	2,37,03	2,52,74	4,89,77	37,21	10'78	1,488	0'42	34,31	11'12
		Military	34	33	...	...	...	30,68	32,41	38,17	37,09	18,70	20,29	38,99	17,09	55'71	1,689	1'32	12,45	38'40
10	(a) to (c)	Oadh and Rohilkhand State.	...	...	...	...	1,11,39	1,16,76	1,34,68	1,34,18	79,85	62,28	1,42,13	13,20	11'85	1,281	0'41	16,23	13'90	
		3' 3 1/2" gauge.																		
11	(a) & (b)	Assam-Bengal	...	12	20	17	19	16,20	17,10	21,34	20,96	10,86	13,42	24,28	4,28	26'29	1,030	0'70	4,43	25'90
12	(a) to (c)	Bengal and North-Western	5,91	5,41	6,42	6,67	8,08	77,83	80,47	97,21	1,01,50	65,93	63,22	1,19,15	10,24	13'18	967	0'36	11,05	13'73
13	(a) & (b)	Bengal Doonars	13	15	15	15	16	2,23	3,49	4,87	5,27	2,52	4,06	6,58	27	9'97	742	0'69	25	7'06
14	(a) to (d)	Bhavnagar-Gondal-Junagad- Porbandar.	...	...	...	...	...	22,43	23,63	46,96	16,85	11,42	8,12	10,54	2,72	12'14	588	0'44	2,55	10'80
15	(a)	Burma	27	39	40	32	37	88,26	1,10,30	1,18,85	1,25,03	74,95	61,29	1,36,14	12,40	14'05	1,314	0'42	13,71	12'48
16	(a)	Deoghur	...	...	...	...	...	33	35	48	30	...	...	41	5	14'89	1,034	0'34	4	11'89
17	(a) & (b)	Dibra-Sadiya	...	...	...	...	...	9,22	9,67	9,99	9,10	4,03	5,13	9,76	1,53	16'84	1,806	0'56	1,73	17'88
4	(b) to (c)	Eastern-Bengal State	5,54	6,54	6,23	6,04	6,40	67,45	78,78	76,48	80,81	80,70	43,80	55,50	7,47	11'08	1,154	0'37	8,17	10'37
8	(c)	Hyderabad-Godavari Valley	...	...	...	...	...	63	10,63	20,10	22,88	13,28	8,96	22,14	...	...	...	...	2,07	19'43
18	(a) to (c)	Jodhpur-Bikaner	...	...	...	...	...	20,84	18,23	22,38	25,02	15,70	11,74	27,44	2,49	11'33	554	0'43	1,92	10'52
7	(d) & (e)	Nilgiri and Sheranur-Cochin	...	...	...	...	...	84	1,76	2,41	4,44	3,31	2,97	6,28	23	27'43	2,501	0'80	...	...
3	(b), (g) to (f)	Rajputana-Malwa	...	...	...	...	...	2,67,26	2,99,16	2,84,69	2,65,04	1,31,02	1,02,12	2,33,74	29,29	10'96	1,460	0'43	34,27	11'46
19	(a) & (b)	Rohilkhand and Kumaon	...	...	...	...	...	17,38	16,91	17,57	16,84	10,32	7,94	16,16	2,23	13'13	812	0'39	1,98	11'69
20	(e) to (c)	South Indian	...	...	...	...	...	87,90	91,95	1,05,26	1,10,10	64,21	64,64	1,28,85	8,19	9'31	744	0'24	9,19	9'97
21	(a) to (k)	Southern Mahratta	...	...	...	...	...	75,87	86,89	61,12	93,17	51,11	44,47	95,58	11,92	16'71	764	0'41	13,41	15'44
22	(a)	Udaipur-Chitor	...	...	...	...	...	2,11	3,18	2,22	2,17	99	79	1,78	24	11'18	373	0'46	26	8'29
		West of India Portuguese	1,57	80	...	...	...	5,72	3,34	3,68	†	†	†	†	58	10'19	1,142	0'50	67	20'09
		2' 6" gauge.																		
24	(a)	Barai Light	...	...	...	...	...	1,56	1,24	1,63	1,50	70	60	1,30	12	7'49	541	0'67	13	10'07
25	(a)	Bukhtiarpore-Bihar Light	...	...	...	...	...	...	...	...	...	...	36	36	...	...	...	...	...	...
28	(a)	Kalka-Simla	...	...	...	...	...	...	...	...	...	...	32	32	...	...	...	...	...	...
30	(a)	Morvi	...	...	...	...	...	4,20	4,23	3,59	3,06	1,55	1,43	2,98	49	11'68	519	0'27	42	10'02
2	(c)	Parlakimedi Light	...	...	...	...	...	...	...	...	...	8	9	17	...	...	...	...	...	...
19	(c)	Powayan Light	...	...	...	...	...	...	...	67	76	41	31	72	...	...	...	...	...	...
31	(c)	Banaghat-Krishnagar Light	...	...	...	...	...	46	69	69	76	44	42	86	8	16'96	521	0'38	10	15'23
23	(a)	Tarakeshwar-Magra Light	...	...	...	...	...	66	77	63	84	43	42	85	9	13'09	278	0'12	9	11'98
34	(a)	Tezpur-Balipara Light	...	...	...	...	...	95	96	84	85	37	58	95	18	18'47	879	0'55	17	17'08
		2' 0" gauge.																		
36	(a)	Darjeeling-Himalayan	...	...	...	...	...	7,15	8,09	7,68	8,50	5,00	4,62	9,62	1,03	14'39	2,017	0'63	70	8'61
7	(a)	Howrah-Amta Light	...	...	...	...	...	2,51	2,56	2,61	2,85	1,41	1,36	2,77	40	15'84	1,388	0'56	28	10'27
33	(a)	Howrah-Sheakhala Light	...	...	...	...	...	73	70	79	82	43	41	67	12	16'60	561	0'34	12	15'47
39	(a)	Jorhat	...	...	...	...	...	97	87	83	97	40	51	91	30	31'38	1,013	1'00	49	58'32
		TOTAL	17,17	17,16	15,53	15,82	17,74	29,36,78	31,54,92	33,60,38	33,92,69	19,1384	186077	360082	3,42,50	11'60	1,499	0'44	3,61,79	11'47

\* Transferred partly to the Bengal-Nagpur railway and partly to the Madras railway from the 1st January 1901.  
† Included with the Southern Mahratta railway from 1902.

DIX 12—continued.  
and Appendix 44 (portion) in Report for 1902.]  
each railway system.  
graphs 17, 18, 22 and 25 of Report.)

EXPENSES IN THOUSANDS OF RUPERS.

No.	OF WAY, WORKS AND STATIONS.																LOCOMOTIVE EXPENSES.								Number.
	1901.				1902.				1903.				1899.				1900.								
	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.	Per train mile.							
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Main head.						
1,305	0.45	1.83	12.98	1,311	0.40	1.53	11.65	1,104	0.42	2.56	16.95	1,941	0.55	1.50	13.19	1,083	0.37	1.47	11.01	1,067	0.35	1			
1,013	0.37	17.79	13.80	1,108	0.48	16.82	11.82	1,043	0.39	20.10	13.93	1,131	0.44	11.97	13.20	1,040	0.53	16.60	12.30	1,378	0.50	2			
3,583	0.77	14.51	8.51	1,636	0.52	18.51	10.81	2,493	0.68	19.27	10.40	2,456	0.67	30.47	16.73	4,431	1.01	34.14	18.07	4,621	0.95	3			
4,953	0.64	10.38	10.99	3,873	0.51	11.24	10.82	4,100	0.52	10.43	10.20	3,751	0.43	9.10	10.05	3,405	0.45	10.36	10.77	3,864	0.51	4			
1,134	0.47	*	*	*	*	*	*	*	*	*	*	*	*	8.99	20.72	1,143	0.60	11.47	18.97	1,470	0.61	5			
3,017	0.39	65.80	8.98	3,123	0.39	71.18	10.11	3,307	0.42	57.45	7.91	2,616	0.35	63.51	9.70	3,193	0.43	73.52	10.40	3,475	0.45	6			
1,977	0.31	34.54	8.28	2,204	0.35	35.04	8.28	2,237	0.32	36.48	7.78	1,608	0.29	78.27	21.83	5,248	0.83	79.85	23.06	5,268	0.84	6			
649	0.36	8.49	8.49	673	0.29	9.21	8.40	721	0.25	7.85	7.84	†	†	16.77	21.01	1,515	0.74	20.75	18.34	1,646	0.72	6			
1,637	0.40	15.91	9.78	1,173	0.34	12.10	11.50	1,376	0.42	24.81	14.30	1,773	0.54	24.05	22.32	2,508	0.89	22.91	20.21	2,662	0.82	7			
1,232	0.63	3.29	7.54	926	0.33	4.56	9.71	1,286	0.40	5.11	11.09	1,441	0.51	5.43	12.29	1,532	0.37	5.85	11.10	1,649	0.49	8			
1,330	0.41	40.14	3.63	1,509	0.38	53.69	12.89	2,008	0.49	54.71	11.17	3,025	0.42	69.77	20.23	2,723	0.78	69.51	22.63	2,697	0.84	9			
1,208	0.92	13.97	36.59	1,305	0.85	15.22	41.04	1,410	0.81	14.73	37.78	1,272	0.70	11.31	38.85	1,117	0.67	12.19	37.60	1,183	0.90	10			
1,514	0.47	17.01	12.63	1,500	0.42	17.53	13.05	1,545	0.41	18.39	12.94	1,540	0.42	12.89	11.40	1,232	0.41	12.84	12.82	1,332	0.57	10			
1,016	0.74	5.46	25.56	942	0.83	5.97	25.63	912	0.71	5.41	23.55	850	0.64	3.61	18.13	632	0.43	2.55	14.93	585	0.43	11			
972	0.36	12.00	12.35	946	0.35	12.42	12.23	968	0.31	12.02	10.89	949	0.31	3.26	10.62	781	0.29	9.03	11.23	794	0.29	12			
406	0.42	33	6.76	304	0.26	45	8.57	396	0.33	65	9.89	496	0.30	26	9.39	714	0.65	37	10.72	616	0.60	13			
590	0.37	2.64	13.91	579	0.51	2.45	14.56	539	0.50	2.38	13.20	523	0.47	3.54	15.90	779	0.58	3.91	16.11	836	0.55	14			
1,264	0.40	15.40	13.03	1,240	0.43	17.01	13.61	1,439	0.45	21.40	15.72	1,617	0.50	18.20	20.63	1,929	0.62	22.73	20.61	2,096	0.67	15			
867	0.27	4	7.78	784	0.26	4	11.77	745	0.24	6	14.63	1,233	0.37	8	25.18	1,746	0.57	11	32.55	2,372	0.74	16			
2,033	0.71	1.83	18.31	2,066	0.72	1.67	18.33	1,673	0.64	2.05	21.00	2,032	0.77	1.05	11.44	1,241	0.42	1.09	11.25	1,279	0.45	17			
1,159	0.38	8.29	10.84	1,133	0.36	10.16	12.57	1,365	0.44	13.23	15.47	1,728	0.53	6.53	9.68	1,008	0.33	7.49	9.51	1,063	0.33	4			
711	0.45	3.33	16.82	899	0.45	4.36	19.06	1,115	0.54	4.45	20.11	1,138	0.54	14	21.76	543	0.62	2.20	20.69	756	0.46	6			
406	0.31	3.72	16.61	505	0.45	3.45	13.77	451	0.36	3.13	11.41	380	0.33	3.02	14.47	673	0.53	3.64	20.02	773	0.56	18			
...	...	15	6.28	896	0.38	55	12.31	999	0.55	55	8.92	678	0.38	30	35.23	3,213	1.16	55	27.43	3,231	1.42	7			
1,733	0.44	30.34	10.66	1,611	0.42	28.12	10.61	1,431	0.42	24.22	10.36	1,232	0.41	42.79	18.01	2,182	0.63	52.44	17.53	2,651	0.68	3			
707	0.34	1.82	10.38	651	0.30	2.35	12.60	844	0.37	2.10	11.69	753	0.34	1.76	10.14	637	0.30	1.98	9.79	593	0.29	19			
837	0.23	8.79	8.35	792	0.26	10.55	9.58	908	0.30	9.36	7.26	749	0.24	17.80	20.25	1,618	0.52	16.44	17.85	1,481	0.51	20			
941	0.39	14.64	18.04	919	0.45	13.96	15.00	949	0.38	12.67	13.11	763	0.35	16.50	21.74	1,058	0.57	18.86	21.71	1,163	0.54	21			
392	0.40	30	31.65	441	0.58	31	14.19	458	0.58	26	14.43	351	0.49	33	15.49	517	0.64	49	15.54	734	0.75	22			
1,315	0.60	75	20.43	1,475	0.63	†	†	†	†	†	†	†	†	1.03	19.04	2,021	0.89	94	28.09	1,838	1.12	23			
602	1.06	11	6.74	525	0.64	11	7.66	533	0.63	11	8.53	516	0.67	18	11.49	831	1.00	12	9.97	556	1.29	24			
...	...	...	...	...	...	...	...	...	...	4	10.24	397	0.26	...	...	...	...	...	...	...	...	...	25		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	26		
449	0.19	41	11.51	438	0.25	39	10.39	336	0.21	27	9.02	285	0.19	88	20.84	929	0.48	1.20	28.44	1,276	0.53	30			
...	...	...	...	...	...	...	...	...	...	6	34.49	233	0.31	...	...	...	...	...	...	...	...	...	2		
...	...	5	5	5	5	12	16.25	311	0.20	...	...	...	...	...	...	...	...	...	...	...	...	...	19		
543	0.37	12	16.98	590	0.39	11	14.00	517	0.35	10	11.98	511	0.34	7	14.97	460	0.33	10	15.21	494	0.33	31			
299	0.12	0	11.30	302	0.11	9	10.61	290	0.10	10	12.30	337	0.12	14	20.44	435	0.20	15	19.15	422	0.19	33			
850	0.62	15	17.83	763	0.48	15	17.52	745	0.45	16	17.19	814	0.49	14	14.45	687	0.42	15	15.86	750	0.45	34			
1,878	0.37	1.00	13.51	2,087	0.66	1.03	12.15	2,026	0.55	1.14	11.68	2,398	0.66	1.39	10.38	2,717	0.84	1.50	18.52	2,941	0.79	36			
978	0.37	31	11.80	1,080	0.38	33	12.55	1,163	0.45	31	11.30	1,063	0.42	31	12.28	1,075	0.44	37	14.46	1,293	0.49	37			
608	0.35	14	18.05	719	0.42	12	15.10	630	0.36	13	15.50	693	0.39	11	14.53	490	0.31	8	13.00	405	0.24	33			
2,832	1.61	12	14.09	412	0.31	23	26.72	798	0.48	26	29.43	668	0.49	19	19.33	719	0.63	17	19.22	642	0.63	39			
1,500	0.43	3,55.93	10.59	1,408	0.40	3,89.97	11.49	1,523	0.42	3,38.99	10.60	1,461	0.41	4,71.44	16.05	2,064	0.61	5,26.50	16.69	3,183	0.63	40			

† Information not available.  
‡ Included with the Great Indian Peninsula railway.

Appendix 12.  
General results.

APPEN  
[Appendices 13, 22 to 27  
General results of working  
(Referred to in para

Number.		Railway including branches worked.	LOCOMOTIVE EXPENSES—contd.												CARRIAGE			
			1901.				1902.				1903.				1904.			
			Amount.	Proportion per cent on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent on gross earnings.	Per mean mile worked.	Per train mile.
		5' 6" gauge.			Rs.	Rs.			Rs.	Rs.			Rs.	Rs.			Rs.	Rs.
1	(a)	Bengal Central . . . . .	1,61	11'49	1,163	0'43	1,45	11'00	1,043	0'39	1,92	12'74	1,383	0'41	48	4'05	332	0'11
2	(a) & (b) & (c) & (d) & (e) & (f) & (g) & (h) & (i) & (j) & (k) & (l) & (m) & (n).	Bengal-Nagpur . . . . .	19,27	14'74	1,199	0'43	22,18	16'00	1,382	0'52	24,87	18'30	1,399	0'54	2,80	3'08	243	0'12
3	(a) & (b) & (c) & (d) & (e) & (f) & (g) & (h) & (i) & (j) & (k) & (l) & (m) & (n).	Bombay, Baroda and Central India . . . . .	29,55	17'33	3,738	1'06	29,62	17'30	3,998	1'09	33,95	18'47	4,264	1'16	14,05	7'72	2,043	0'47
4	(a)	Eastern Bengal State . . . . .	13,26	14'03	4,947	0'65	14,48	13'04	5,283	0'67	13,84	13'55	4,981	0'64	4,54	5'01	1,699	0'23
		East Coast . . . . .												1,77	4'09	226	0'12	
5	(a) to (d)	East Indian . . . . .	75,67	10'36	3,602	0'45	76,04	11'06	3,825	0'46	77,08	10'61	3,510	0'47	19,39	2'96	984	0'13
6	(a)	Great Indian Peninsula . . . . .	87,59	20'95	5,597	0'88	93,05	21'33	5,941	0'86	1,00,63	21'47	4,440	0'81	23,72	6'02	1,500	0'25
6	(b) to (f)	Indian Midland . . . . .	21,20	21'19	1,681	0'72	24,38	22'24	1,870	0'66	21,79	21'72	†	†	4,40	5'51	397	0'19
7	(a) to (c)	Madras . . . . .	35,32	21'71	2,605	0'75	36,99	23'28	2,667	0'80	37,62	21'69	2,688	0'81	4,60	4'27	525	0'17
8	(a) & (b)	Nizam's Guaranteed State . . . . .	5,14	11'80	1,443	0'52	6,71	14'29	1,882	0'61	6,67	14'41	1,880	0'67	1,15	2'59	323	0'12
9	(a) to (A)	North Western State:—																
		Commercial . . . . .	80,93	19'51	3,043	0'77	81,10	19'40	3,023	0'73	95,26	19'45	3,525	0'74	15,32	4'44	613	0'17
		Military . . . . .	13,65	35'77	1,275	0'64	13,93	37'50	1,307	0'75	15,50	39'75	1,338	0'73	1,63	5'30	161	0'13
10	(a) to (c)	Oudh and Rohilkhand State . . . . .	19,87	14'75	1,753	0'49	19,96	14'87	1,761	0'47	21,48	15'11	1,809	0'49	8,14	7'31	790	0'27
		3' 3 1/2" gauge.																
11	(a) & (b)	Assam-Bengal . . . . .	3,15	14'76	544	0'48	3,87	18'48	657	0'51	4,18	7'43	657	0'50	52	3'20	125	0'08
12	(a) to (c)	Bengal and North-Western . . . . .	9,96	10'15	783	0'29	11,20	11'03	875	0'28	13,02	10'03	905	0'30	1,03	2'49	192	0'07
13	(a) & (b)	Bengal Doonams . . . . .	75	15'32	690	0'64	63	12'02	555	0'46	73	11'11	558	0'34	7	2'42	192	0'17
14	(a) to (d)	Bhavnagar-Gondal-Junagad- Porbandar . . . . .	3,16	16'63	685	0'61	2,78	16'53	612	0'57	2,70	13'82	593	0'53	66	2'95	146	0'11
15	(a)	Burma . . . . .	26,43	22'24	2,287	0'74	27,16	21'72	2,293	0'72	30,27	22'23	2,287	0'70	4,15	4'71	440	0'14
16	(a)	Deoghur . . . . .	16	32'56	3,283	1'04	10	33'53	2,123	0'68	8	19'51	1,679	0'50	5	18'34	1,065	0'35
17	(a) & (b)	Dibru-Sadiya . . . . .	1,23	12'35	1,365	0'42	1,32	14'52	1,597	0'62	1,12	11'46	1,360	0'62	49	5'35	591	0'19
18	(b) to (e)	Eastern Bengal State . . . . .	9,09	11'59	1,243	0'39	8,76	10'84	1,177	0'38	9,76	11'41	1,274	0'39	1,97	2'92	304	0'10
19	(c)	Hyderabad-Godavari-Valley . . . . .	3,12	15'54	802	0'41	3,54	15'47	904	0'44	3,30	15'17	859	0'40	1	1'16	29	0'03
20	(a) to (c)	Jodhpur-Bikaner . . . . .	4,71	21'03	631	0'61	5,24	20'05	686	0'55	5,88	21'41	713	0'61	35	1'68	78	0'06
21	(d) & (e)	Nilgiri and Shoranur-Cochin . . . . .	86	27'41	3,015	1'57	1,24	23'02	2,274	1'26	1,59	25'39	1,950	1'08	3	2'57	235	0'08
22	(b), (g) to (i)	Rajputana-Malwa . . . . .	49,39	17'35	2,624	0'69	45,76	17'27	2,333	0'69	42,26	18'09	2,149	0'71	9,96	3'73	504	0'15
23	(a) & (b)	Rohilkhand and Kumaon . . . . .	1,97	11'23	705	0'33	2,28	12'23	819	0'36	2,16	11'90	771	0'35	62	3'57	221	0'11
24	(a) to (e)	South Indian . . . . .	16,09	19'13	1,719	0'57	17,68	16'24	1,539	0'50	20,45	15'87	1,638	0'54	4,88	5'55	444	0'14
25	(a) to (h)	Southern Mahratta . . . . .	17,91	22'07	1,123	0'55	21,31	22'77	1,268	0'53	20,54	21'43	1,248	0'58	4,62	6'35	309	0'17
26	(a)	Udaipur-Chitor . . . . .	39	17'74	572	0'76	34	15'68	507	0'65	39	21'79	576	0'75	11	5'08	169	0'21
27		West of India Portuguese . . . . .	99	28'86	1,939	1'09	†	†	†	†	†	†	†	†	19	3'85	375	0'17
		2' 6" gauge.																
28	(a)	Barai Light . . . . .	17	10'28	801	0'38	16	10'35	762	0'39	16	12'48	755	0'39	5	3'34	243	0'28
29	(a)	Bukhtiarpore-Behar Light . . . . .	—	—	—	—	—	—	—	—	4	11'87	460	0'30	—	—	—	—
30	(a)	Kalka-Simla . . . . .	—	—	—	—	—	—	—	—	13	39'39	1,006	0'91	—	—	—	—
31	(a)	Morvi . . . . .	1,60	27'81	1,057	0'60	78	25'67	830	0'52	63	21'17	609	0'44	17	4'07	182	0'09
32	(e)	Parlakimedi Light . . . . .	—	—	—	—	—	—	—	—	9	53'59	362	0'49	—	—	—	—
33	(c)	Powayan Light . . . . .	§	§	§	§	15	20'05	394	0'25	—	—	—	—	—	—	—	—
34	(e)	Ranaghat-Krishnagar Light . . . . .	11	16'28	556	0'38	12	16'23	611	0'40	10	11'85	508	0'32	2	4'43	139	0'10
35	(a)	Tarakeshwar-Magra Light . . . . .	14	16'57	443	0'16	15	17'78	482	0'17	14	16'05	440	0'16	4	5'49	116	0'06
36	(e)	Tezpur-Balipara Light . . . . .	15	17'83	753	0'46	14	16'85	719	0'43	15	15'38	726	0'44	7	8'00	391	0'21
		2' 0" gauge.																
37	(a)	Darjeeling-Himalayan . . . . .	1,45	18'42	2,853	0'23	1,45	17'02	2,838	0'77	1,72	17'90	3,377	1'22	51	7'14	1,001	0'31
38	(a)	Howrah-Amta Light . . . . .	48	17'54	1,593	0'87	33	12'29	1,138	0'44	36	12'00	1,248	0'48	10	3'84	370	0'14
39	(a)	Howrah-Sheakhala Light . . . . .	13	16'33	650	0'37	10	12'40	515	0'30	9	9'77	431	0'24	8	4'28	144	0'08
40	(a)	Jorhat . . . . .	41	43'29	1,141	1'10	27	31'41	938	0'56	24	26'68	815	0'40	22	22'43	834	0'78
TOTAL			5,59,13	16'84	2,214	0'63	5,78,85	17'06	2,261	0'62	6,11,95	16'99	2,299	0'64	1,33,06	4'56	587	0'17

\* Transferred partly to the Bengal-Nagpur railway  
† included with the

DIX 12—continued.  
and Appendix 44 (portion) in Report for 1902.]  
each railway system.  
graphs 17, 18 22 and 25 of Report.)

Appendix 12.  
General results.

IN THOUSANDS OF RUPEES—continued.

AND WAGON EXPENSES.																TRAFFIC EXPENSES.								Number Main head.	
1900.				1901.				1902.				1903.				1899.				1900.					
Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.	Per train mile.		
		Rs.	Rs.			Rs.	Rs.			Rs.	Rs.			Rs.	Rs.			Rs.	Rs.			Rs.	Rs.		
22	2'14	206	0'07	34	2'42	245	0'09	48	3'63	345	0'13	72	4'74	515	0'15	1,81	11'48	943	0'32	1,50	11'29	1,084	0'35	1	
3,58	2'76	297	0'11	5,49	4'20	341	0'15	5,14	3'61	320	0'12	5,55	3'76	323	0'13	7,26	6'01	631	0'31	8,93	6'88	742	0'27	2	
15,31	8'10	1,070	0'48	10,00	5'85	1,284	0'38	13,00	8'12	1,875	0'51	13,04	7'10	1,676	0'45	10,36	5'96	1,579	0'30	12,19	6'45	1,568	0'34	3	
4,64	4'63	1,733	0'22	6,15	6'51	2,298	0'30	3,83	3'68	1,305	0'18	6,43	6'29	2,313	0'30	10,84	11'97	4,053	0'54	11,12	11'57	4,150	0'55	4	
1,33	3'19	250	0'10	*	*	*	*	*	*	*	*	*	*	*	*	5,27	12'14	676	0'35	5,76	9'52	737	0'30		
31,40	3'22	1,012	0'13	22,20	3'04	1,057	0'13	17,20	2'53	827	0'11	14,93	2'06	680	0'09	41,53	6'34	2,168	0'29	45,61	6'48	2,155	0'28	5	
10,07	5'23	1,102	0'19	20,40	4'90	1,308	0'21	22,71	5'35	1,450	0'21	21,77	6'29	1,693	0'20	30,78	8'59	2,063	0'32	32,25	9'31	2,128	0'34	6	
4,13	3'65	337	0'14	4,89	4'39	383	0'17	84	5'33	497	0'17	5,24	5'23	†	†	5,07	7'60	548	0'26	6,99	6'19	555	0'24	6	
4,89	4'30	571	0'17	7,00	4'30	516	0'15	8,51	5'13	614	0'19	10,59	6'10	787	0'23	8,67	8'05	1,012	0'32	8,67	7'82	1,039	0'31	7	
1,33	2'53	375	0'09	1,32	3'03	373	0'13	1,43	3'05	404	0'10	1,57	3'38	443	0'18	2,74	6'21	774	0'29	2,81	5'32	791	0'24	8	
14,14	4'58	548	0'17	21,71	5'24	816	0'21	36,42	8'72	1,358	0'33	16,60	3'39	614	0'13	25,46	7'67	1,059	0'30	25,26	8'51	1,015	0'32	9	
1,75	5'43	171	0'13	2,25	5'90	209	0'14	3,73	10'05	355	0'21	2,05	5'28	177	0'10	4,56	14'35	451	0'35	4,89	14'48	456	0'35		
6,36	5'85	638	0'20	4,55	3'46	411	0'11	10,28	7'65	905	0'24	5,71	4'02	481	0'13	9,13	8'19	896	0'29	10,16	6'71	946	0'30	10	
62	3'60	141	0'10	82	4'33	159	0'14	1,02	4'80	173	0'18	1,23	5'11	193	0'15	2,08	12'83	502	0'34	2,32	13'58	533	0'39	11	
2,58	3'21	237	0'08	2,03	2'70	209	0'08	2,56	2'52	200	0'06	2,75	2'31	208	0'07	5,63	7'21	532	0'20	6,77	8'42	596	0'22	12	
7	2'05	118	0'12	17	3'56	160	0'16	16	2'98	137	0'11	10	2'82	145	0'09	31	11'19	852	0'75	36	10'21	581	0'60	13	
73	3'08	160	0'11	72	3'39	159	0'14	49	2'84	105	0'10	56	2'39	124	0'11	2,16	9'62	474	0'35	2,25	9'51	494	0'33	14	
5,40	4'88	408	0'16	6,10	5'13	528	0'17	6,09	4'87	515	0'16	6,28	4'39	473	0'14	9,14	10'35	969	0'31	10,22	9'27	942	0'30	15	
4	10'61	774	0'24	1	2'10	213	0'07	1	3'34	211	0'07	4	9'76	835	0'25	5	16'31	1,133	0'37	6	15'86	1,164	0'36	16	
53	5'46	631	0'23	51	5'11	577	0'20	40	5'40	594	0'23	57	5'84	693	0'26	57	6'20	673	0'23	62	6'44	733	0'23	17	
2,79	3'53	395	0'12	3,43	4'49	470	0'15	3,39	4'19	454	0'14	2,86	3'35	374	0'11	6,00	9'03	940	0'30	6,63	8'41	940	0'29	4	
15	1'39	81	0'03	34	1'68	97	0'04	38	1'84	96	0'04	43	1'95	111	0'05	8	11'91	297	0'34	1,09	10'23	376	0'24	8	
45	2'46	96	0'07	53	2'35	75	0'07	90	3'61	118	0'10	68	2'49	83	0'07	89	4'09	195	0'15	1,01	5'55	214	0'16	18	
3	1'75	207	0'09	3	1'37	158	0'08	16	3'72	302	0'17	29	4'68	353	0'19	4	5'23	476	0'17	10	4'66	572	0'25	7	
15,08	5'04	763	0'20	16,76	5'29	891	0'23	17,56	6'63	893	0'26	16,53	7'07	841	0'23	17,23	6'45	876	0'25	18,34	6'30	953	0'24	3	
65	3'65	233	0'11	78	4'41	277	0'18	73	3'94	284	0'12	74	4'10	266	0'12	1,33	7'65	474	0'23	1,33	7'89	477	0'23	19	
5,17	5'63	466	0'18	5,41	5'14	487	0'16	5,65	5'13	486	0'16	4,73	3'67	379	0'13	7,85	8'93	714	0'23	7,85	8'52	707	0'24	20	
5,23	6'07	331	0'15	5,66	6'07	355	0'18	5,60	6'01	340	0'15	6,14	6'40	373	0'17	8,43	11'11	546	0'29	9,21	10'60	577	0'28	21	
4	1'32	62	0'06	15	6'07	218	0'23	15	6'77	219	0'23	11	6'53	172	0'23	18	8'43	283	0'35	21	6'76	319	0'33	22	
21	6'39	41	0'25	21	5'69	411	0'23	†	†	†	†	†	†	†	†	53	10'07	1,128	0'49	57	17'24	1,127	0'69		
3	2'50	139	0'35	3	1'84	143	0'17	3	2'25	157	0'18	3	2'20	134	0'17	17	10'62	768	0'94	15	12'59	695	1'35	24	
...	...	...	...	...	...	...	...	...	...	...	...	1	1'36	83	0'03	...	...	...	...	...	...	...	...	...	25
...	...	...	...	...	...	...	...	...	...	...	...	1	3'13	116	0'07	...	...	...	...	...	...	...	...	...	23
17	4'03	160	0'08	16	4'53	173	0'10	14	4'62	146	0'09	10	3'56	112	0'08	42	10'02	447	0'23	47	11'16	501	0'21	30	
...	...	...	...	...	...	...	...	...	...	...	...	3	11'03	74	0'10	...	...	...	...	...	...	...	...	...	3
...	...	...	...	5	5	5	5	4	5'61	107	0'07	...	...	...	...	...	...	...	...	...	...	...	...	...	19
4	3'65	247	0'17	3	4'79	169	0'11	3	3'52	140	0'19	3	2'33	130	0'09	16	34'63	1,064	0'76	19	28'22	936	0'67	31	
3	4'26	96	0'04	5	6'25	167	0'06	6	6'69	181	0'06	6	6'98	191	0'07	16	24'18	514	0'23	16	20'84	514	0'31	33	
7	7'38	330	0'21	5	5'44	228	0'12	6	7'03	299	0'19	5	5'26	249	0'15	16	16'46	783	0'48	16	16'90	800	0'45	34	
65	6'09	1,275	0'35	64	6'95	1,084	0'31	44	5'16	861	0'23	49	5'70	984	0'34	68	9'45	1,323	0'41	69	8'56	1,353	0'30	36	
9	3'54	314	0'12	9	3'64	331	0'12	9	3'30	304	0'13	11	4'09	396	0'15	45	17'89	1,567	0'63	47	18'34	1,642	0'63	37	
3	2'90	101	0'08	3	3'47	139	0'08	2	2'90	121	0'07	3	3'55	156	0'09	30	27'94	942	0'56	30	26'13	1,013	0'69	38	
6	7'37	227	0'23	6	7'30	214	0'18	10	11'65	334	0'21	3	3'84	217	0'07	19	19'83	726	0'63	19	21'95	718	0'70	39	
1,39,31	4'42	878	0'17	1,51,90	4'52	601	0'17	1,76,39	5'20	689	0'19	1,53,51	4'34	573	0'16	2,30,98	7'85	1,010	0'30	2,40,27	7'90	1,034	0'30		

and partly to the Madras railway from the 1st January 1901.  
Great Indian Peninsula railway.  
Mahratta railway from 1902.  
available.

Appendix 12.  
General results.

APPEN  
[Appendices 13, 22 to 27  
General results of working  
(Referred to in para

WORKING EXPENSES IN

Number.		Railway including branches worked.	TRAFFIC EXPENSES—contd.												GENERAL					
Main head.	Sub-head.		1901.				1902.				1903.				1900.		1900.			
			Amount.	Proportion per cent on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent on gross earnings.	Per mean mile worked.	Per train mile.		
<b>5' 6" gauge.</b>																				
1	(a)	Bengal Central . . . . .	1.40	9.20	1,011	0.37	1.53	11.51	1,993	0.41	1.57	10.43	1,133	0.34	1.44	12.08	1,039	0.38	1.49	11.12
3	(a), (b) & (d)	Bengal-Nagpur . . . . .	12.26	9.38	763	0.33	12.08	9.73	809	0.30	14.41	8.27	611	0.31	7.34	9.09	639	0.31	8.04	6.20
3	(a), (c) to (f) & (m) & (n).	Bombay, Baroda and Central India.	11.35	6.85	1,436	0.41	11.64	6.80	1,571	0.43	13.90	7.58	1,799	0.49	5.60	8.08	814	0.19	5.50	.07
4	(a)	Eastern Bengal State . . . . .	11.62	12.30	4,336	0.57	12.81	12.34	4,674	0.59	13.45	13.16	4,839	0.62	3.87	4.28	1,448	0.19	3.89	4.05
		East Coast . . . . .	"	"	"	"	"	"	"	"	"	"	"	"	3.97	9.15	505	0.26	4.13	6.33
5	(a) to (d)	East Indian . . . . .	49.65	6.79	2,363	0.29	50.93	7.23	2,366	0.30	53.97	7.43	2,458	0.33	20.54	3.14	1,044	0.14	22.20	3.14
6	(a)	Great Indian Peninsula . . . . .	31.50	7.48	1,983	0.31	33.61	7.92	2,146	0.31	37.17	7.38	1,840	0.30	13.09	3.36	878	0.14	14.27	4.12
6	(b) to (f)	Indian Midland . . . . .	7.61	7.61	604	0.26	8.84	8.07	692	0.24	8.04	8.01	7	7	5.57	6.97	503	0.24	5.93	5.23
7	(a) to (c)	Madras . . . . .	13.31	8.18	932	0.29	12.99	7.83	936	0.28	14.10	8.13	1,008	0.30	5.90	5.48	690	0.22	6.18	5.48
8	(a) & (b)	Nizam's Guaranteed State . . . . .	2.70	6.20	761	0.27	2.67	5.69	754	0.21	2.60	5.62	733	0.26	2.70	6.10	761	0.28	3.59	4.90
9	(a) to (A)	North Western State:—																		
		Commercial . . . . .	29.89	7.21	1,124	0.29	32.07	7.67	1,196	0.29	34.20	8.99	1,266	0.26	11.09	3.47	456	0.12	13.55	4.00
		Military . . . . .	5.13	13.42	479	0.31	5.08	13.71	471	0.27	5.45	13.93	471	0.26	3.61	8.50	258	0.20	3.97	8
10	(a) to (c)	Oudh and Rohilkhand State	21.79	8.75	1,040	0.29	12.29	9.16	1,034	0.28	13.49	9.49	1,156	0.31	4.71	4.23	457	0.16	5.06	4.34
<b>3' 3 1/2" gauge.</b>																				
11	(a) & (b)	Assam-Bengal . . . . .	2.93	13.73	506	0.45	2.93	14.24	508	0.39	3.11	12.98	459	0.37	3.32	20.48	602	0.54	3.10	18.14
12	(a) to (c)	Bengal and North-Western . . . . .	6.23	8.47	633	0.24	6.69	8.28	679	0.22	8.31	7.48	671	0.28	4.56	5.95	430	0.16	5.10	6.30
13	(a) & (b)	Bengal Doonars . . . . .	45	9.15	412	0.36	42	7.98	368	0.30	46	7.44	373	0.23	25	9.03	667	0.63	24	7.05
14	(a) to (d)	Rhavnagar-Gondal-Junagad-Forbandar.	1.86	9.93	413	0.38	1.93	11.46	424	0.49	1.85	9.45	406	0.37	2.09	9.33	460	0.24	2.93	6.61
15	(a)	Burma . . . . .	11.11	9.35	962	0.31	11.30	9.04	856	0.30	13.05	9.59	968	0.30	6.98	7.77	727	0.23	6.85	6.23
16	(a)	Deoghar . . . . .	6	12.25	1,336	0.42	6	20.56	1,302	0.43	8	19.51	1,679	0.50	2	7.07	491	0.16	3	6.74
17	(a) & (b)	Dibra-Sadiya . . . . .	70	6.99	787	0.27	66	7.11	781	0.30	65	6.66	701	0.30	81	8.78	943	0.33	63	8.59
4	(b) to (c)	Eastern Bengal State . . . . .	7.02	9.18	960	0.30	6.82	8.19	839	0.28	7.77	9.08	1,016	0.31	3.89	4.29	416	0.14	3.20	4.07
8	(a)	Hyderabad-Godavari Valley . . . . .	1.84	9.13	472	0.24	2.10	9.16	534	0.26	2.20	9.93	562	0.26	4	8.98	174	0.20	65	8.05
18	(a) to (c)	Jodhpur-Bikaner . . . . .	1.27	5.69	184	0.18	1.64	6.37	215	0.18	1.58	5.76	192	0.16	57	2.74	127	0.10	50	3.28
7	(d) & (e)	Nilgiri and Shorannur-Cochin . . . . .	21	4.43	632	0.25	33	7.42	603	0.33	60	9.62	731	0.41	3	1.83	168	0.06	4	1.63
3	(b), (g) to (i).	Rajputana-Malwa . . . . .	19.68	6.68	1,011	0.27	17.97	6.78	914	0.27	17.76	7.60	963	0.30	12.31	4.61	622	0.18	10.68	3.77
19	(a) & (b)	Rohilkhand and Kumaon . . . . .	1.47	8.35	524	0.24	1.57	8.43	565	0.25	1.48	8.14	528	0.24	1.51	8.67	537	0.26	1.49	6.76
20	(a) to (c)	South Indian . . . . .	7.59	7.23	694	0.23	7.99	7.26	689	0.23	8.43	6.55	675	0.22	6.90	7.16	572	0.19	6.69	7.25
21	(a) to (A)	Southern Mahratta . . . . .	8.95	11.03	591	0.28	9.25	9.04	562	0.25	8.95	9.34	544	0.25	8.15	10.74	523	0.28	7.99	9.20
22	(a)	Udaipur-Chittor . . . . .	20	9.06	293	0.39	20	9.23	298	0.38	18	10.29	272	0.35	18	6.37	212	0.28	16	5.54
		West of India Portuguese . . . . .	57	15.49	1,118	0.63	†	†	†	†	†	†	†	†	96	16.72	1,872	0.82	96	26.73
<b>2' 6" gauge.</b>																				
24	(a)	Barsi Light . . . . .	17	10.06	784	0.96	16	10.89	758	0.89	14	10.59	641	0.63	38	24.59	1,775	2.11	37	29.63
25	(a)	Bukhtiarpore-Behar Light . . . . .	"	"	"	"	"	"	"	"	9	25.56	969	0.65	"	"	"	"	"	"
26	(a)	Kalka-Simla . . . . .	"	"	"	"	"	"	"	"	6	19.37	695	0.45	"	"	"	"	"	"
30	(a)	Morvi . . . . .	38	10.06	405	0.23	32	10.68	342	0.21	30	9.98	315	0.21	45	10.60	473	0.25	33	7.71
2	(a)	Parlakimedi Light . . . . .	"	"	"	"	"	"	"	"	5	29.63	200	0.27	"	"	"	"	"	"
19	(c)	Powayan Light . . . . .	†	†	†	†	"	"	"	"	"	"	"	"	†	†	†	†	†	†
31	(a)	Ranaghat Krishnagar Light . . . . .	21	30.05	1,025	0.70	22	28.93	1,088	0.72	23	26.32	1,123	0.74	5	10.76	330	0.24	7	9.62
33	(a)	Tarakeswar-Magra Light . . . . .	16	19.39	518	0.19	16	19.32	521	0.18	16	16.93	519	0.19	11	16.18	387	0.17	13	15.66
34	(a)	Tezpur-Balipara Light . . . . .	17	19.77	828	0.50	16	18.40	782	0.47	16	17.40	825	0.50	13	13.66	680	0.39	13	13.63
<b>2' 0" gauge.</b>																				
16	(a)	Darjeeling-Himalayan . . . . .	61	7.70	1,190	0.35	69	8.17	1,363	0.37	73	7.54	1,423	0.51	92	11.47	1,608	0.50	73	9.04
7	(a)	Howrah-Amta Light . . . . .	44	16.83	1,538	0.55	42	15.86	1,468	0.57	45	16.40	1,586	0.61	13	5.17	454	0.16	12	4.67
8	(a)	Howrah-Sheakhata Light . . . . .	20	25.28	1,006	0.58	19	23.40	972	0.58	21	23.62	1,041	0.59	6	7.44	251	0.14	5	7.20
9	(a)	Jorhat . . . . .	18	16.10	539	0.48	17	19.81	592	0.38	17	19.15	586	0.39	12	12.54	469	0.40	11	12.35
<b>TOTAL</b>			2,62,92	7.85	1,041	0.30	2,73,70	8.07	1,069	0.30	2,92,19	8.11	1,066	0.30	1,42,38	4.85	623	0.18	1,47,43	4.67

\* Transferred partly to the Bengal-Nagpur railway  
† Included with the  
‡ Information  
§ Included with

DIX 12—continued.  
and Appendix 44 (portion) in Report for 1902.]  
each railway system.  
graphs 17, 18, 22 and 25 of Report.)

Appendix 12.  
General results.

THOUSANDS OF RUPEES—continued.

CHANGES.														STEAM-BOAT SERVICE.					SPECIAL AND MISCELLANEOUS EXPENDITURE.					Number.	
1901.		1902.				1903.				1899.	1900.	1901.	1902.	1903.	1899.	1900.	1901.	1902.	1903.						
Per mean mile worked.	Per train mile.	Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.	Per train mile.	Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.	Per train mile.												
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.												
1,068	0.34	1,57	11.16	1,129	0.42	1,63	12.37	1,173	0.44	1,65	10.93	1,187	0.35	...	...	...	...	...	47	1,19	88	82	1,59	1	
668	0.24	9,78	7.48	608	0.26	10,40	7.39	654	0.25	11,07	7.51	657	0.25	...	...	...	72	1,42	1,63	3,27	4,70	4,47	6,70	2	
757	0.16	6,86	4.02	858	0.25	7,41	4.33	1,000	0.27	8,33	4.53	1,079	0.19	...	...	...	...	...	2,68	5,44	3,62	2,78	3,24	3	
1,450	0.19	4,15	4.39	1,547	0.20	4,46	4.29	1,626	0.20	4,37	4.27	1,573	0.20	47	35	...	...	...	2,09	2,28	2,51	3,21	2,87	4	
533	0.23	*	*	*	*	*	*	*	*	*	*	*	*	59	53	*	*	*	71	1,09	*	*	*	*	
1,049	0.14	23,53	3.22	1,120	0.14	24,20	3.44	1,125	0.14	24,38	3.36	1,110	0.15	1,80	2,16	2,02	1,80	2,01	16,88	16,98	18,94	14,86	16,41	5	
843	0.15	17,19	4.11	1,007	0.17	16,92	3.39	1,030	0.16	17,73	3.78	783	0.14	...	...	...	...	...	8,93	10,76	9,74	11,54	13,73	6	
470	0.21	4,14	4.14	323	0.16	4,42	4.03	347	0.12	3,84	3.80	7	7	...	...	...	...	...	2,97	5,03	2,65	2,98	2,93	6	
724	0.22	8,44	5.18	622	0.18	9,27	5.59	698	0.20	9,42	5.43	673	0.20	...	...	...	...	...	1,19	2,18	3,66	4,23	4,96	7	
728	0.21	3,53	5.81	714	0.25	3,28	4.85	643	0.20	2,31	4.99	651	0.23	...	...	...	...	...	62	1,32	52	1,06	1,07	8	
479	0.15	13,04	3.15	460	0.12	13,21	3.16	493	0.12	13,69	2.83	514	0.11	27	16	21	15	14	5,01	5,12	5,43	7,15	5,82	9	
279	0.21	3,89	7.57	270	0.18	3,12	6.42	284	0.16	3,19	6.18	275	0.15	20	35	18	12	10	47	57	56	77	69	10	
473	0.16	5,40	4.01	476	0.13	5,81	4.33	513	0.14	6,23	4.38	524	0.14	...	...	...	...	...	2,75	2,10	2,69	2,97	3,19	11	
712	0.52	3,71	20.22	641	0.57	4,21	20.10	715	0.56	4,18	17.42	657	0.50	1	12	15	14	19	17	32	46	83	1,29	12	
446	0.17	5,57	5.73	442	0.16	5,72	5.63	447	0.14	6,04	5.07	456	0.14	2,43	2,78	2,21	3,01	3,43	3,27	2,27	2,84	3,41	2,73	13	
406	0.42	55	11.24	506	0.44	53	15.83	731	0.60	96	14.64	731	0.44	37	23	13	11	9	2	3	4	9	17	14	
447	0.30	2,03	10.73	447	0.39	2,00	11.85	438	0.41	1,94	9.94	426	0.38	...	...	...	...	...	47	51	43	36	39	15	
632	0.20	7,40	6.30	648	0.21	7,95	6.36	673	0.21	9,06	6.65	685	0.21	71	96	83	1,24	1,26	1,01	1,45	1,51	1,55	1,95	16	
401	0.17	3	5.75	579	0.18	3	9.34	668	0.22	3	7.32	628	0.19	...	...	...	...	...	2	1	...	...	1	17	
977	0.34	82	8.20	926	0.32	81	8.89	1,022	0.39	82	6.40	1,027	0.39	...	...	...	...	...	6	6	5	4	5	4	
455	0.14	3,40	4.45	465	0.15	3,45	4.27	464	0.15	3,51	4.11	459	0.14	3,34	4,80	3,61	5,91	5,85	1,06	1,31	1,17	1,65	1,30	8	
294	0.19	1,97	9.83	507	0.28	2,40	10.87	636	0.31	2,48	11.21	634	0.30	...	...	...	...	...	...	6	22	33	36	18	
127	0.09	92	4.13	134	0.12	1,14	4.57	150	0.12	1,25	4.54	151	0.13	...	...	...	...	...	81	49	1,39	69	72	7	
228	0.10	4	1.57	225	0.09	19	4.37	355	0.19	38	5.99	480	0.26	...	...	...	...	...	3	3	4	12	15	3	
570	0.14	11,47	4.03	610	0.16	11,38	4.29	579	0.17	10,65	4.55	542	0.18	...	...	...	...	...	2,80	3,63	4,59	5,00	4,69	...	
529	0.26	1,07	9.51	597	0.27	1,59	9.52	571	0.25	1,71	9.42	611	0.27	...	...	...	...	...	1,19	1,45	18	24	28	19	
601	0.20	5,79	6.45	612	0.20	7,10	6.45	611	0.20	7,39	5.73	591	0.19	...	...	...	...	...	1,98	1,33	1,63	1,60	1,45	20	
501	0.23	8,46	10.43	530	0.26	9,05	9.71	550	0.25	9,15	9.55	556	0.26	...	...	...	...	...	1,61	1,54	1,63	1,56	1,61	21	
262	0.27	17	7.78	252	0.34	16	7.26	235	0.30	14	8.07	213	0.27	...	...	...	...	...	7	14	7	4	3	22	
1,879	1.14	98	26.73	1,929	1.09	†	†	†	†	†	†	†	†	63	58	56	†	†	11	7	11	†	†	...	
1,714	3.18	38	23.74	1,772	2.16	43	28.57	1,668	2.33	30	23.12	1,400	1.93	...	...	...	...	...	1	2	3	9	3	24	
...	...	...	...	...	...	...	...	...	...	3	8.29	321	0.21	...	...	...	...	...	...	...	...	...	...	...	25
...	...	...	...	...	...	...	...	...	...	5	15.82	579	0.37	...	...	...	...	...	...	...	...	...	...	...	26
346	0.15	34	9.50	361	0.20	32	10.63	344	0.22	23	7.70	243	0.16	...	...	...	...	...	9	5	4	4	...	30	
...	...	...	...	...	...	...	...	...	...	4	23.18	157	0.21	...	...	...	...	...	...	...	...	...	...	...	3
†	†	†	†	†	†	11	14.35	275	0.18	...	...	...	...	†	†	†	...	...	†	†	†	2	...	19	
346	0.23	7	9.71	331	0.22	7	8.81	331	0.22	7	7.57	323	0.21	...	...	...	...	...	...	...	...	...	...	1	31
385	0.15	13	15.82	423	0.15	13	15.18	411	0.14	13	15.42	423	0.16	...	...	...	...	...	...	1	1	...	1	33	
650	0.39	15	17.53	733	0.45	12	14.78	625	0.37	15	15.49	734	0.45	...	...	...	...	...	1	2	1	...	...	34	
1,431	0.31	86	10.87	1,679	0.40	88	10.35	1,736	0.47	90	9.39	1,771	0.44	...	...	...	...	...	15	20	22	23	47	36	
418	0.16	15	5.87	533	0.19	14	5.46	505	0.20	14	5.23	505	0.19	...	...	...	...	...	...	...	1	1	2	37	
263	0.15	5	7.10	263	0.16	6	7.06	293	0.17	6	7.23	318	0.18	...	...	...	...	...	...	2	...	1	...	38	
416	0.41	12	14.48	423	0.35	12	13.86	414	0.25	12	13.64	416	0.24	...	...	...	...	...	...	...	...	1	1	39	
611	0.18	1,57,85	4.70	625	0.18	1,63,70	4.83	639	0.18	1,68,91	4.69	636	0.18	10,68	13,04	10,88	13,20	15,21	61,56	71,97	72,37	74,99	80,90	...	

and partly to the Madras railway from the 1st January 1901.  
Southern Mahratta railway from 1902.  
not available.  
the Great Indian Peninsula railway.



Appendix 12.  
General results.

[Appendices 13, 14 to 27  
General results of working  
(Referred to in para

NUMBER.		Railway including branches worked.	WORKING EXPENSES IN											
Main head.	Sub-head.		1899.				1900.				1901.			
			Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.*	Per train mile.*	Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.*	Per train mile.*	Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.*	Per train mile.*
					Rs.	Rs.			Rs.	Rs.			Rs.	Rs.
<b>5' 6" gauge.</b>														
1	(a)	Bengal Central . . . . .	6,00	61.23	5,025	1.70	7,83	68.70	5,635	1.84	7,82	64.25	5,480	2.03
2	(a), (b) & (d).	Bengal-Nagpur . . . . .	49,52	47.96	3,781	1.67	53,51	40.58	4,970	1.88	60,29	51.98	4,309	1.86
3	(a), (c), (e), (f), (g) & (h).	Bombay, Baroda and Central India. . . . .	85,78	46.59	12,470	2.86	1,00,50	53.58	13,103	3.85	75,91	44.70	9,004	2.73
4	(a)	Eastern Bengal State. . . . .	44,63	49.30	18,700	2.20	45,92	47.75	17,002	3.22	46,07	50.89	17,533	2.35
		East Coast . . . . .	28,27	65.11	3,518	1.85	33,93	56.10	4,291	1.77	†	†	†	†
5	(a) to (d)	East Indian . . . . .	2,17,77	33.18	11,033	1.46	2,45,89	34.73	11,511	1.69	2,57,61	35.27	12,165	1.62
6	(a)	Great Indian Peninsula . . . . .	1,95,29	54.56	13,103	3.11	1,85,17	51.47	13,218	1.95	2,00,95	48.03	13,520	2.01
6	(b) to (f)	Indian Midland . . . . .	45,41	56.85	4,102	1.99	53,52	47.28	4,246	1.86	48,98	49.97	3,895	1.65
7	(a) to (c)	Madras . . . . .	56,41	52.30	6,591	2.09	59,02	52.04	6,907	2.10	63,84	51.40	6,169	1.80
8	(a) & (b)	Nizam's Guaranteed State . . . . .	17,36	39.28	5,417	2.01	21,56	41.52	6,167	1.74	15,50	35.69	4,370	1.64
9	(a) to (h)	North Western State— Commercial . . . . .	1,60,03	48.14	6,632	1.85	1,61,85	52.47	6,270	1.95	1,91,35	48.14	7,186	1.82
		Military . . . . .	37,97	123.42	3,723	3.92	34,89	107.60	3,395	2.67	38,61	101.15	3,591	2.35
10	(a) to (c)	Oudh and Rohilkhand State. . . . .	60,62	45.45	4,913	1.61	60,08	51.42	5,599	1.75	61,42	45.60	5,419	1.51
<b>3' 3 1/2" gauge.</b>														
11	(a) & (b)	Assam-Bengal . . . . .	12,97	80.08	5,136	3.12	13,46	78.89	3,060	3.23	16,78	79.00	2,870	3.54
12	(a) to (c)	Bengal and North-Western . . . . .	39,22	46.07	3,201	1.19	39,58	49.21	3,251	1.20	43,34	44.59	3,198	1.18
13	(a) & (b)	Bengal Doers . . . . .	1,55	56.63	3,334	2.99	1,55	44.42	3,178	2.25	2,42	49.85	2,294	1.94
14	(a) to (d)	Bhavnagar-Gondal-Jungad- Porbandar. . . . .	11,61	51.82	2,553	1.90	11,99	50.28	2,609	1.73	10,36	57.26	2,313	2.06
15	(a)	Burma . . . . .	53,47	59.45	5,486	1.78	61,35	55.82	5,596	1.77	69,96	53.02	5,595	1.90
16	(a)	Deoghur . . . . .	27	79.33	5,550	1.82	29	78.86	5,746	1.79	30	61.45	6,198	1.96
17	(a) & (b)	Dibru-Sadiya . . . . .	4,51	48.86	5,303	1.74	4,86	49.96	5,720	1.99	5,14	51.50	5,813	2.01
4	(b) to (e)	Eastern Bengal State. . . . .	29,34	43.50	4,015	1.29	34,39	43.04	4,197	1.31	37,01	48.40	5,001	1.59
8	(c)	Hyderabad-Godavari Valley. . . . .	27	41.21	1,044	1.19	6,42	60.41	3,209	1.41	10,97	51.07	2,782	1.44
18	(a) to (e)	Jodhpur-Bikaner . . . . .	9,12	38.89	1,810	1.41	9,09	41.39	1,715	1.29	12,41	55.69	1,636	1.46
7	(d) & (e)	Kilgiri and Shornur-Cochin . . . . .	64	76.70	6,937	2.51	76	42.83	4,461	1.96	1,03	42.97	6,121	2.48
3	(b) (g) to (h).	Rajputana-Malwa . . . . .	1,14,45	42.83	5,735	1.68	1,34,81	43.40	6,865	1.74	1,31,57	46.21	6,993	1.84
19	(a) & (b)	Rohilkund and Kumaon . . . . .	8,69	50.69	3,100	1.50	8,16	47.97	3,900	1.40	7,89	44.90	2,917	1.31
20	(a) to (e)	South Indian . . . . .	48,96	52.66	4,209	1.36	46,96	59.43	4,189	1.43	49,30	46.40	4,399	1.46
21	(a) to (b)	Southern Mahratta . . . . .	51,45	67.79	3,297	1.78	58,29	64.78	3,539	1.61	67,75	70.45	3,581	1.77
22	(a)	Udaipur-Chitor . . . . .	1,06	60.21	1,675	2.07	1,22	41.59	1,965	2.01	1,28	57.04	6,861	2.19
		West of India Portuguese . . . . .	4,09	71.24	6,753	2.96	4,00	120.04	6,715	4.08	4,17	113.20	7,028	3.95
<b>2' 6" gauge.</b>														
24	(a)	Bani Light . . . . .	91	66.63	4,240	5.11	82	65.89	3,798	7.41	89	52.88	4,106	5.61
25	(a)	Bokhtiarpoor-Babar Light . . . . .	---	---	---	---	---	---	---	---	---	---	---	---
28	(a)	Kalka-Simla . . . . .	---	---	---	---	---	---	---	---	---	---	---	---
30	(a)	Morvi . . . . .	2,50	59.56	2,654	1.37	2,64	62.40	2,803	1.17	2,33	65.00	2,470	1.40
2	(c)	Parlakimedi Light . . . . .	---	---	---	---	---	---	---	---	---	---	---	---
19	(e)	Powsyan Light . . . . .	---	---	---	---	---	---	---	---	47	70.00	1,186	0.91
31	(a)	Ranaghat-Krishnagar Light . . . . .	38	61.84	2,514	1.81	50	71.95	2,469	1.87	54	78.03	2,663	1.80
33	(a)	Terakeshwar-Nagra Light . . . . .	54	81.67	1,731	0.75	56	72.63	1,799	0.72	58	70.23	1,877	0.68
34	(a)	Tezpur-Balipara Light . . . . .	60	72.51	3,450	2.09	70	73.12	3,500	2.12	67	79.34	3,347	2.05
<b>2' 0" gauge.</b>														
36	(a)	Darjeeling-Himalayan . . . . .	4,58	61.06	9,085	2.78	4,47	55.28	8,804	2.38	4,74	60.18	9,300	2.69
37	(a)	Howrah-Amta Light . . . . .	1,29	55.02	4,821	1.94	1,33	51.89	4,647	1.77	1,46	56.21	5,104	1.92
38	(a)	Howrah-Sheakhala Light . . . . .	52	70.77	2,838	1.44	49	64.71	2,481	1.41	55	70.82	2,806	1.61
39	(a)	Jorhat . . . . .	1,02	106.16	3,947	3.40	1,03	118.07	3,855	3.78	87	105.01	3,089	2.55
<b>TOTAL</b>			12,82,36	47.45	6,055	1.79	15,00,31	47.85	6,204	1.78	15,72,45	46.79	6,179	1.77

\* Excluding steam-boat.  
† Transferred partly to the Bengal-Nagpur railway and partly to the Madras railway from the 1st January 1901.  
‡ Included with the Southern Mahratta railway from 1902.

DIX 12—continued.

Appendix 12.  
General results.

and Appendix 44 (portion) in Report for 1902,]  
each railway system.  
(graphs 17, 18, 22 and 25 of Report.)

THOUSANDS OF RUPEES—concluded.

NET EARNINGS IN THOUSANDS OF RUPEES—continued.

EXPENSES.										NET EARNINGS IN THOUSANDS OF RUPEES—continued.								NUMBERS.	
1902.				1903.						1899.				1900.					
Amount.	Proportion per cent. on gross earnings.	Per mean mile worked.*	Per train mile.*	Amount.			Proportion per cent. on gross earnings.	Per mean mile worked.*	Per train mile.*	Amount.	Percentage on capital outlay.	Per mean mile worked.*	Per train mile.*	Amount.	Percentage on capital outlay.	Per mean mile worked.*	Per train mile.*		
		Rs.	Rs.	1st half.	2nd half.	Total.		Rs.	Rs.			Rs.	Rs.			Rs.	Rs.		
7.43	55.43	5,352	2.02	4.41	5.00	10.01	66.38	7,206	2.15	4.42	3.43	3,181	1.08	5.50	4.34	3,955	1.30	1	
72.80	51.20	4,493	1.68	42.43	42.59	85.02	54.69	4,702	1.61	47.21	2.83	4,102	2.03	77.13	4.43	6,406	2.32	2	
83.83	46.96	11,313	3.09	48.35	43.38	91.73	49.92	11,716	3.18	96.31	7.28	14,074	3.21	88.33	6.49	11,369	2.68	3	
50.03	48.18	18,284	3.30	26.65	24.74	51.39	50.27	18,489	3.39	45.90	6.47	17,250	2.30	50.24	7.00	18,847	2.47	4	
†	†	†	†	†	†	†	†	†	†	15.15	1.78	1,907	1.01	26.55	3.01	2,352	0.95	5	
2,58.80	36.74	11,940	1.52	1,25.04	1,31.19	2,46.33	33.89	11,120	1.50	4,37.30	9.89	22,187	2.95	4,60.79	9.70	21,540	2.62	6	
2,12.67	50.17	13,581	1.97	1,22.02	1,08.47	2,30.49	49.18	10,170	1.86	1,67.15	5.52	10,613	1.72	1,61.15	5.26	10,632	1.70	6	
55.67	50.78	4,360	1.53	25.72	23.66	49.68	49.52	5	5	34.47	2.69	3,136	1.51	59.65	4.56	4,722	2.06	6	
91.09	54.96	6,565	1.98	48.39	53.11	1,01.50	58.51	7,253	2.19	51.29	4.13	5,989	1.90	54.37	4.30	6,365	1.93	7	
18.73	39.89	5,281	1.86	10.97	8.36	10.38	41.79	5,450	1.95	26.87	6.23	7,571	2.62	30.81	7.12	8,686	2.63	8	
2,23.99	53.59	8,946	2.01	1,13.55	1,07.06	2,20.61	45.01	8,159	1.70	1,78.90	3.23	7,160	2.00	1,46.61	3.65	5,624	1.77	9	
41.97	113.16	3,998	3.25	20.41	21.30	41.71	106.96	3,583	1.97	-7.19	---	-7.23	-0.56	-2.47	---	-237	-0.18	10	
68.81	51.23	6,079	1.61	[[33.35	36.24	69.49	48.19	5,768	1.55	60.77	5.18	5,898	1.91	56.72	4.43	5,206	1.66	10	
18.42	67.66	3,102	2.41	9.43	10.15	19.58	80.84	2,960	2.27	3.23	0.60	782	0.53	3.64	0.62	838	0.61	11	
47.04	46.35	3,410	1.10	24.79	23.71	48.50	40.71	3,395	1.12	41.51	5.39	3,604	1.34	40.69	4.60	2,753	1.24	12	
2.69	51.09	2,359	1.94	1.62	1.76	3.28	49.87	2,431	1.47	1.16	4.51	3,925	3.65	1.94	3.33	2,739	2.83	13	
10.02	59.49	2,172	2.03	5.40	4.42	9.82	50.27	2,122	1.89	10.79	4.80	2,369	1.75	11.75	5.23	2,581	1.72	14	
72.30	57.63	6,112	1.69	42.06	41.69	83.95	61.66	6,197	1.90	35.79	4.11	3,639	1.23	48.95	4.43	4,528	1.45	15	
21	79.75	5,150	1.63	---	---	30	73.17	6,263	1.88	6	2.32	1,394	0.46	7	2.56	1,540	0.46	16	
4.98	54.77	6,086	2.19	2.66	2.00	5.26	53.39	5,920	2.25	4.71	5.40	5,550	2.17	4.81	5.35	5,651	2.12	17	
39.98	43.41	4,569	1.46	27.67	21.61	44.28	51.78	5,018	1.54	39.11	7.16	5,543	2.94	44.39	7.36	5,847	1.82	18	
13.20	57.69	3,273	1.64	6.25	7.03	13.28	59.98	3,394	1.60	36	0.16	1,453	1.66	4.21	1.81	1,447	0.92	19	
13.06	52.18	1,710	1.38	0.33	6.91	13.24	48.26	1,607	1.38	12.72	12.51	2,632	2.21	10.13	6.09	2,146	1.62	20	
2.59	58.23	4,737	2.61	1.62	1.74	3.56	58.53	4,354	2.42	20	0.42	2,182	0.79	1.01	3.06	5,955	3.42	21	
1,25.79	47.46	6,400	1.89	58.92	57.29	1,16.11	49.07	5,632	1.93	1,52.78	9.99	7,767	2.25	1,64.35	10.35	8,308	2.19	22	
8.76	47.00	3,149	1.38	4.40	4.07	8.47	46.65	3,025	1.55	8.69	7.45	3,069	1.50	8.76	7.25	3,110	1.53	23	
50.97	45.62	4,341	1.42	21.21	27.00	51.91	40.21	4,149	1.35	40.95	5.36	3,783	1.23	45.29	5.60	4,109	1.40	24	
6.65	65.09	3,684	1.67	20.52	29.44	68.96	61.51	3,592	1.65	24.44	1.93	1,567	0.95	30.60	2.39	1,919	0.68	25	
1.20	53.31	1,787	2.31	67	54	1.11	62.63	1,655	2.15	1.05	5.27	1,681	2.05	1.66	9.38	2,759	2.82	26	
†	†	†	†	†	†	†	†	†	†	1.64	1.01	1,368	1.41	-66	---	1,743	-1.06	27	
97	61.81	4,511	5.29	30	38	77	58.33	3,579	4.06	65	4.76	2,901	3.01	43	3.13	1,966	2.48	28	
---	---	---	---	---	21	21	57.74	2,236	1.47	---	---	---	---	---	---	---	---	---	29
---	---	---	---	---	25	25	78.08	2,890	1.80	---	---	---	---	---	---	---	---	---	30
1.02	63.86	2,032	1.27	79	74	1.53	51.43	1,625	1.08	1.70	5.79	1,893	0.93	1.59	5.82	1,683	0.71	31	
---	---	---	---	13	14	27	155.59	1,052	1.42	---	---	---	---	---	---	---	---	---	32
53	70.24	1,346	0.87	24	19	43	60.34	1,097	---	---	---	---	---	---	---	---	---	---	33
55	71.97	2,708	1.79	27	26	53	60.86	2,588	1.73	8	1.16	558	0.29	19	2.59	960	0.64	34	
59	70.52	1,910	0.98	30	30	60	70.40	1,934	0.70	13	1.27	308	0.19	21	2.18	674	0.27	35	
63	74.63	3,168	1.80	33	34	67	70.72	3,350	2.03	26	5.52	1,308	0.79	26	5.29	1,290	0.79	36	
4.72	55.54	9,112	2.51	272	2.73	5.45	66.65	10,514	3.25	2.57	7.33	5,035	1.63	3.62	10.34	7,095	1.92	37	
1.32	46.86	4,614	1.80	72	67	1.39	50.32	4,866	1.97	1.13	9.88	3,941	1.53	1.23	10.36	4,301	1.64	38	
50	61.32	2,546	1.47	27	25	52	59.85	2,632	1.49	21	3.52	968	0.61	27	4.40	1,359	0.79	39	
90	104.22	3,114	1.87	35	42	77	65.02	2,596	1.47	-6	---	-239	-0.20	-15	---	-592	-0.58	40	
16,70.40	49.24	6,472	1.79	8,68.15	6,42.64	17,11.09	47.53	6,371	1.77	15,43.42	5.00	6,733	1.99	16,45.01	4.99	6,903	1.95	41	

§ Included with the Great Indian Peninsula railway.  
 † Excludes Rs. 20,597 paid to the Oudh and Rohilkhand railway on account of surplus profits.  
 ‡ Including the Poyan Light railway, detailed information for which is not available.

Appendix 12.  
General results.

APPEN

[Appendices 13, 22 to 27 and Appendix  
General results of work  
(Referred to in paragraph

NUMBERS.		Railway including branches worked.	NET EARNING			
Main head.	Sub-head.		1901.			
			Amount.	Percentage on capital outlay.	Per mean mile worked.*	Per train mile.*
					Rs.	Rs.
		<b>5' 6" gauge.</b>				
1	(e)	Bengal Central . . . . .	6,43	4'85	4,639	1'72
2	(a), (b) & (d)	Bengal-Nagpur . . . . .	61,49	2'90	3,824	1'67
3	(a), (c) to (f) & (m) & (n)	Bombay, Baroda and Central India . . . . .	94,67	6'78	11,977	3'40
4	(a)	Eastern Bengal State . . . . .	46,37	6'32	17,301	2'27
		East Coast . . . . .	†	†	†	†
5	(a) to (d)	East Indian . . . . .	4,72,87	9'03	23,506	2'81
6	(a)	Great Indian Peninsula . . . . .	2,17,30	7'07	8,935	2'18
6	(b) to (f)	Indian Midland . . . . .	51,04	3'60	†	1'72
7	(a) to (e)	Madras . . . . .	79,09	4'09	5,921	1'70
8	(a) & (b)	Nizam's Guaranteed State . . . . .	23,05	6'43	7,908	2'81
9	(a) to (k)	North Western State—				
		Commercial . . . . .	2,23,38	5'75	8,402	2'13
		Military . . . . .	—44	—	—26	—0'02
10	(a) to (e)	Oudh and Rohilkhand State. . . . .	73,26	5'75	6,453	1'80
		<b>3' 3½" gauge.</b>				
11	(a) & (b)	Assam-Bengal . . . . .	4,56	0'44	780	0'69
12	(a) to (c)	Bengal and North Western . . . . .	53,87	5'26	4,010	1'49
13	(a) & (b)	Bengal Dooars . . . . .	3,45	2'78	2,265	1'25
14	(a) to (d)	Bhavnagar-Gondal-Jamnad-Portbandar . . . . .	8,10	3'59	1,781	1'55
15	(a)	Burma . . . . .	49,69	4'18	4,356	1'40
16	(a)	Deoghur . . . . .	18	6'53	3,897	1'23
17	(a) & (b)	Dibru-Sadiya . . . . .	4,85	4'93	5,474	1'90
4	(b) to (e)	Eastern Bengal State . . . . .	39,47	6'07	5,332	1'67
8	(c)	Hyderabad-Godavari Valley . . . . .	9,23	3'77	2,372	1'22
18	(a) to (e)	Jodhpur-Bikaner . . . . .	9,94	4'85	1,350	1'13
7	(d) & (e)	Nilgiri and Shoranur-Cochin . . . . .	1,38	4'50	8,159	3'27
3	(b), (g) to (i)	Rajputana-Malwa . . . . .	1,53,12	9'57	7,857	2'15
19	(a) & (b)	Rohilkund and Kumaon . . . . .	2,68	7'81	3,457	1'60
20	(a) to (e)	South Indian . . . . .	55,07	6'41	5,062	1'69
21	(a) to (k)	Southern Mahratta . . . . .	23,97	1'87	1,503	0'74
22	(a)	Udampur-Chitor . . . . .	94	4'56	1,369	1'82
		West of India Portuguese . . . . .	—49	—	—1,696	—0'95
		<b>2' 6" gauge.</b>				
24	(a)	Barai Light . . . . .	79	6'13	3,686	5'40
25	(a)	Bakhtiarpore-Bihar Light . . . . .	—	—	—	—
26	(a)	Katka-Simla . . . . .	—	—	—	—
30	(a)	Morvi . . . . .	1,28	4'55	1,330	0'75
2	(c)	Parlakimedi Light . . . . .	—	—	—	—
19	(c)	Powayan Light . . . . .	20	2'38	508	0'35
31	(a)	Rauaghat-Krishnagar Light . . . . .	15	2'02	750	0'51
33	(e)	Terakeswar-Magra Light . . . . .	26	2'57	724	0'23
34	(a)	Tezpur-Balipara Light . . . . .	17	3'47	1,089	0'53
		<b>2' 0" gauge.</b>				
26	(a)	Darjeeling-Himalayan . . . . .	3,14	9'02	6,152	1'79
37	(a)	Howrah-Amta Light . . . . .	1,15	9'53	3,978	1'42
38	(a)	Howrah-Sheakhala Light . . . . .	24	3'60	1,178	0'68
39	(a)	Jorhat . . . . .	—4	—	—147	—0'12
		<b>TOTAL</b> . . . . .	<b>17,87,93</b>	<b>5'27</b>	<b>7,057</b>	<b>2'02</b>

cluding steam-bust.  
ferred partly to the Bengal-Nagpur railway and partly  
cluded with the Great Indian Peninsula railway.  
cluded with the Southern Mahratta railway from 1902.  
cluding the Deoghur railway, for which half-yearly figures

DIX 12—concluded.

44 (portion) in Report for 1902.  
ing each railway system.  
17, 18, 22 and 26 of Report.)

Appendix 12.  
General results.

IN THOUSANDS OF RUPEES—concluded.

1902.				1903.							Mileage.
Amount.	Percentage on capital outlay.	Per mean mile worked.*	Per train mile.*	Amount.			Percentage on capital outlay.	Per mean mile worked.*	Per train mile.*		
				1st half.	2nd half.	Total.					
5,74	4'38	Rs. 4,132	Rs. 1'56	1,79	3,29	5,09	3'95	3,653	1'09	1	
69,38	3'10	4,362	1'63	40,83	28,63	50,46	2'49	4,027	1'55	2	
57,37	6'18	11,791	3'23	56,18	33,55	92,03	6'37	12,180	3'29	3	
53,80	7'03	19,623	3'47	12,06	39,77	50,83	4'02	18,200	2'36	4	
†	†	†	†	†	†	†	†	†	†		
4,45,54	6'87	20,676	2'64	2,51,54	2,28,85	4,80,39	6'29	21,864	2'96	5	
2,11,36	6'86	9,763	1'85	1,59,97	78,23	2,38,20	7'66	10,466	1'92	6	
53,96	3'98	†	†	33,34	17,31	50,65	3'65	†	†	6	
74,95	3'61	5,402	1'83	42,06	28,89	71,97	3'58	5,142	1'55	7	
29,23	6'41	7,958	2'79	15,61	11,32	26,93	6'09	7,591	2'71	8	
1,93,85	4'11	7,234	1'75	1,23,48	1,45,63	2,69,16	6'76	9,964	2'08	9	
-4,83	...	-431	-0'25	-1,71	-1,01	-2,72	...	-225	-0'22		
65,57	4'53	5,757	1'52	46,60	27,04	73,64	4'97	6,201	1'67	10	
2,54	0'24	403	0'31	1,42	3,27	4,70	0'40	717	0'55	11	
54,48	5'01	3,969	1'31	41,14	29,51	70,65	6'18	4,988	1'67	12	
2,59	3'00	2,220	1'85	1,00	2,30	3,30	3'10	2,441	1'50	13	
6,83	3'02	1,499	1'40	6,02	3,70	9,72	4'29	2,134	1'30	14	
52,73	4'66	4,533	1'43	32,79	19,40	52,19	4'01	4,065	1'24	15	
6	3'19	1,258	0'41	...	...	11	4'00	2,296	0'68	16	
4,12	4'18	2,651	2'06	1,97	2,53	4,50	4'55	5,909	3'24	17	
40,88	6'01	5,473	1'74	14,03	27,19	41,22	5'60	5,311	1'63	18	
9,68	3'76	2,473	1'20	7,04	1,82	8,86	3'38	2,264	1'07	19	
11,96	5'06	1,513	1'26	9,38	4,83	14,20	6'73	1,722	1'70	20	
1,85	1'85	3,390	1'87	1,48	1,84	2,72	2'73	3,328	1'85	21	
1,39,25	6'50	7,085	2'09	72,80	44,83	1,17,63	7'09	5,976	1'98	22	
9,86	7'25	3,550	3'09	5,93	3,76	9,69	6'96	3,460	1'54	23	
59,13	6'56	5,133	1'89	40,00	37,04	77,04	8'31	6,169	2'02	24	
32,53	3'25	1,976	0'89	21,59	15,03	36,62	2'57	2,225	1'03	25	
97	4'70	1,443	1'87	41	26	67	3'21	987	1'28	26	
§	§	§	§	§	§	§	§	§	§		
53	4'02	2,449	2'97	31	22	53	4'28	2,474	3'22	27	
...	...	...	...	...	18	16	3'16	1,035	1'08	28	
...	...	...	...	...	7	7	0'49	812	0'51	29	
1,13	4'56	1,201	0'75	76	69	1,45	5'80	1,534	1'02	30	
...	...	...	...	-5	-5	-10	...	-376	-0'51	31	
23	2'62	570	0'37	16	13	29	3'16	727	...	32	
21	2'84	1,054	0'70	18	15	33	4'55	1,671	1'11	33	
25	2'54	706	0'28	13	13	26	2'30	815	0'30	34	
22	4'43	1,082	0'65	4	24	28	5'69	1,387	0'84	35	
3,78	10'18	7,560	2'05	2,28	1,89	4,17	11'54	8,310	1'79	36	
1,33	10'49	4,640	1'80	69	68	1,38	10'69	4,604	1'85	37	
33	5'20	1,007	0'82	16	19	35	6'68	1,770	1'00	38	
-3	...	-126	-0'08	5	9	14	1'51	488	0'26	39	
17,22,30	4'92	6,718	1'88	10,45,49	8,44,13	18,69,73	5'54	7,920	1'86		

to the Madras railway from the 1st January 1901.

Appendix 13.  
Gain or loss to the State.

APPEN  
[Appendix 7 (portion)]  
Gain or loss to the State  
Referred to in paragraph  
(For capital outlay, gross earnings, net receipts, interest)

NUMBER.		RAILWAY.	1879.	1880.	1881.	1882.
Main head.	Sub-head.					
<b>State lines worked by Companies.</b>						
1	(a)	Bengal Central . . . . .	...	...	-51,616	-1,85,534
2	(a), (b) and (d)	Bengal-Nagpur . . . . .	-89,911	-1,80,589	-1,96,876	-1,50,796
8	(b)	Beswada extension . . . . .	...	...	...	...
6	(b)	Bhopal-Itarsi (British section) . . . . .	...	...	...	-47,206
5	(a)	East Indian . . . . .	+59,14,239	+70,93,089	+82,73,743	+71,95,249
6	(a)	Great Indian Peninsula . . . . .	-23,89,335	-19,41,485	+18,57,149	+23,89,400
...	...	Wardha Coal . . . . .	-2,45,361	-3,83,762	-1,18,409	-1,40,547
...	...	Dhond-Manmad . . . . .	-4,35,189	-4,11,154	-2,70,850	-2,38,610
6	(e)	Indian Midland . . . . .	-3,37,950	-3,37,491	-2,70,467	-2,55,072
7	(c)	Madras, North-East line (East Coast State railway) . . . . .	...	...	...	...
11	(a)	Assam-Bengal . . . . .	...	...	...	...
15	(a)	Burma . . . . .	-4,05,695	-41,246	+58,867	+6,461
21	(c)	Guntakal-Mysore frontier . . . . .	...	...	...	...
18	(c)	Jodhpur-Hyderabad (British section) . . . . .	...	...	...	...
19	(b)	Lucknow-Bareilly . . . . .	...	...	...	...
21	(g)	Mysore section (Southern Mahratta) . . . . .	-23,960	-63,908	-45,159	-65,494
7	(d)	Nilgiris . . . . .	...	...	...	...
3	(j)	Palanpur-Deesa (British section) . . . . .	...	...	...	...
7	(b) and (k)	Rajputana-Malwa . . . . .	-13,01,536	-18,47,735	-1,52,461	+14,09,749
20	(a) and (e)	South Indian . . . . .	-10,31,953	-11,93,626	-8,92,842	-7,38,543
21	(a)	Southern Mahratta . . . . .	...	...	...	...
1	(c)	Tirhoot . . . . .	-1,29,592	-16,997	-31,045	-1,32,565
<b>TOTAL</b>			<b>-9,70,243</b>	<b>+7,10,099</b>	<b>+81,59,974</b>	<b>+90,46,402</b>
<b>State lines worked by State.</b>						
4	(a) and (c)	Eastern Bengal State . . . . .	-6,39,177	-87,456	+6,11,359	+10,29,323
...	...	East Coast State . . . . .	...	...	...	...
9	(a), (f), (g) and (h)	North Western State . . . . .	-41,92,145	-36,02,480	-71,51,301	-47,87,701
10	(a) and (c)	Oudh and Rohilkhand State . . . . .	-9,80,064	-9,15,537	-9,38,438	-12,66,251
...	...	Cherra-Companyganj State . . . . .	...	...	...	...
39	(a)	Jorhat State . . . . .	...	...	...	...
<b>TOTAL</b>			<b>-61,11,386</b>	<b>-46,05,473</b>	<b>-74,78,400</b>	<b>-50,21,429</b>
<b>Companies' lines guaranteed under old contracts.</b>						
3	(a)	Bombay, Baroda and Central India . . . . .	-11,55,900	-8,02,293	+4,78,703	-98,461
7	(a)	Madras . . . . .	-36,29,035	-37,59,195	-36,40,509	-31,18,170
<b>TOTAL</b>			<b>-47,84,935</b>	<b>-39,77,641</b>	<b>-31,61,806</b>	<b>-32,16,631</b>
<b>Companies' lines guaranteed under modern contracts.</b>						
10	(b)	Hardwar-Dehra . . . . .	...	...	...	...
4	(b)	Brahmaputra-Sultanpur . . . . .	...	...	...	...
<b>TOTAL</b>			<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>
<b>District Boards' lines.</b>						
20	(d)	Tanjore District Board* . . . . .	...	...	...	...
<b>TOTAL GAIN OR LOSS TO THE STATE FROM RAILWAY OUTLAY.</b>			<b>-1,18,65,564</b>	<b>-78,73,025</b>	<b>-24,80,232</b>	<b>+8,05,343</b>
<b>Unclassified expenditure including collieries, etc.</b>						
...	...	Collieries . . . . .	†	†	†	†
...	...	Unclassified expenditure	†	†	†	†
...	...	Guaranteed Companies—				
...	...	Land and supervision†.	-6,32,840	-5,76,140	-7,47,450	-7,21,820
...	...	Subsidized Companies—				
...	...	Land, interest and subsidy†	...	...	-1,32,260	-2,59,020
...	...	Miscellaneous railway expenditure†	-1,96,830	-5,77,080	-5,18,600	-25,39,950
<b>TOTAL</b>			<b>-8,29,670</b>	<b>-11,53,220</b>	<b>-13,98,310</b>	<b>-35,21,690</b>
<b>GRAND TOTAL GAIN OR LOSS TO THE STATE FROM RAILWAY OUTLAY.</b>			<b>-1,26,96,234</b>	<b>-19,26,245</b>	<b>-38,78,542</b>	<b>-27,16,348</b>

\* This line was purchased by the Tanjore District Board with effect from the 1st January  
† Information  
‡ The figures up to 1895  
§ Purchased by the State

**DIX 13.**  
in report for 1902.]  
from railway outlay.

of Report.  
argues, etc., see Statistical Table I incorporated in Appendix 3C.)

**Appendix 13.**  
Gain or loss to the State.

1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.
-3,56,839	-4,81,871	-3,51,929	-4,17,788	-4,68,768	-3,61,797	-2,22,705	-2,58,047	-2,18,175
+3,10,577	+2,33,630	-92,706	-1,96,041	-10,32,356	-16,54,362	-25,93,204	-28,41,389	-3,21,223
...	...	...	...	-16,363	-29,357	-37,204	-38,212	-27,567
-59,185	-51,406	-59,874	-53,240	-46,150	-44,660	-55,422	-66,923	-9,106
+80,77,307	+47,41,188	+95,98,482	+60,74,842	+64,62,734	+47,53,555	+34,28,775	+42,62,988	+1,03,04,156
+17,00,262	-8,02,301	+1,16,586	+7,97,683	+3,32,601	+23,245	-22,22,799	+3,94,710	+13,04,438
+8,41,780	-49,316	-1,17,924	-1,42,292	-1,57,434	-86,503	+16,777	-6,295	-1,43,726
-2,10,446	-2,04,493	-1,89,921	-1,96,589	-2,10,555	-1,83,013	-1,89,892	-1,76,495	-1,31,713
-1,97,034	-2,01,519	-4,48,432	-16,54,742	-17,22,141	-24,81,284	-24,91,045	-30,09,506	-19,60,028
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	-5,893
-1,85,302	-1,47,279	-5,82,061	-3,23,093	+2,43,054	-5,46,600	-4,43,672	+2,12,833	+48,105
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	-5,356
-11,192	-35,733	-36,004	-1,19,841	-1,17,122	-1,04,472	-69,321	-98,361	-99,054
-1,19,676	-75,573	-43,946	-4,51,719	-5,29,606	-6,41,915	-5,33,330	-4,89,864	-3,07,187
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
+22,04,400	+18,02,129	+30,61,585	+31,54,761	+24,31,779	+39,04,474	+30,27,785	+27,23,286	+61,24,386
-8,24,245	-10,47,980	-11,20,431	-15,04,582	-15,98,991	-17,48,365	-17,66,324	-9,95,600	-12,31,012
...	-14,95,327	-18,41,102	-21,54,828	-24,60,462	-23,04,012	-23,71,602	-22,54,816	-22,18,777
-2,39,309	-3,07,737	-2,26,926	-1,29,755	-84,076	-18,610	+1,36,314	+3,80,590	+4,19,463
+1,04,91,148	+18,76,357	+76,65,397	+26,82,829	+10,86,034	-15,33,676	-63,86,469	-22,08,511	+1,09,95,035
+12,54,710	+5,37,120	-3,80,378	-12,49,269	-11,56,378	+6,80,669	+11,28,969	+11,60,063	+13,32,736
...	...	...	...	...	...	...	-7,590	-2,33,786
-21,21,688	-30,05,670	-28,80,523	-47,15,042	-1,94,69,516	-1,08,98,096	-94,90,543	-88,63,307	-79,40,321
-6,55,133	-17,88,441	-23,57,972	-23,27,259	-22,63,090	-21,51,489	-7,67,822	-6,68,631	+2,16,792
...	-608	-15,360	-35,975	-48,950	-50,724	-45,067	-33,627	-31,551
...	-18,016	-26,850	-35,913	-40,980	-27,732	-32,600	-23,286	-23,543
-14,25,111	-42,75,015	-61,61,063	-83,63,458	-1,67,18,314	-1,24,98,372	-92,07,063	-84,36,378	-66,34,673
+12,83,049	+5,70,453	+7,82,257	+5,87,303	+24,754	-2,50,608	-55,566	+5,84,848	+5,56,776
-31,81,867	-34,87,745	-34,57,038	-38,95,709	-44,40,178	-41,02,236	-39,31,513	-23,64,473	-34,85,657
-19,48,318	-29,17,292	-27,47,781	-33,07,906	-44,15,424	-43,52,844	-39,87,079	-18,29,630	-29,28,881
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	-1,230	-10,873
-71,17,319	-53,16,150	-12,43,467	-89,88,535	-2,00,47,704	-1,83,84,892	-1,95,80,611	-1,24,73,239	+14,42,354
†	†	-45,223	-76,239	-5,413	+59,418	-54,165	+70,333	+63,127
-6,421	-10,076	-11,418	-1,91,842	-1,50,168	-1,88,203	-1,47,866	-2,39,338	-2,58,834
-6,78,260	-6,14,570	-7,95,530	-6,62,350	-5,14,350	-4,48,450	-3,09,520	-4,29,880	-1,92,570
-5,45,730	-3,95,510	-4,41,250	-4,52,430	-4,36,370	-2,80,710	-6,91,800	-3,62,880	-8,31,300
+12,94,050	-9,75,540	-9,92,740	-9,48,990	-5,18,470	-7,06,840	-14,91,240	-14,91,970	-9,20,600
+68,689	-19,95,696	-22,86,156	-23,36,851	-16,24,671	-15,59,285	-26,94,091	-24,53,735	-16,35,177
-71,65,858	-73,11,846	-35,20,628	-1,13,15,146	-2,16,72,375	-1,89,44,177	-2,22,74,702	-1,49,27,024	-1,92,823

† prior to which date it was known as the Mayavaram-Mutupet railway.  
† available.  
† for official years.  
the 1st January 1903.

Appendix 13.  
Gain or loss to the State.

APPEN  
[Appendix 7 (portion) in report  
Gain or loss to the State  
Referred to in paragraph  
(For capital outlay, gross earnings, net receipts, interest

NUMBER.		RAILWAY.	1892.	1893.	1894.	1895.
Main head.	Sub-head.					
<b>State lines worked by Companies.</b>						
1	(a)	Bengal Central . . . . .	-2,91,948	-3,01,663	-3,70,233	-2,95,158
2	(a), (b), and (d)	Bengal-Nagpur . . . . .	-8,97,179	-11,35,374	-13,25,579	-13,15,356
8	(b)	Bezawada extension . . . . .	-28,237	-22,916	+14,148	+37,980
6	(b)	Bhopal-Itarsi (British section) . . . . .	-12,734	-26,391	-22,054	-43,209
5	(a)	East Indian . . . . .	+88,55,041	+68,16,499	+61,59,068	+57,30,845
6	(a)	Great Indian Peninsula§ . . . . .	-24,22,723	-41,00,172	-86,30,196	-86,00,520
...	...	Wardha Coal . . . . .	-1,65,241	-1,10,271	-1,10,319	-1,23,177
...	...	Dhond-Manmad . . . . .	-1,14,200	-95,674	-66,025	-41,871
6	(e)	Indian Midland . . . . .	-19,97,725	-24,39,785	-20,57,481	-29,49,135
7	(c)	Madras, North East line (East Coast State railway) . . . . .	...	...	...	...
11	(a)	Assam-Bengal . . . . .	-2,66,878	-7,09,997	-8,76,954	-14,03,683
15	(a)	Burma . . . . .	+8,95,867	-4,77,503	-5,71,047	-2,98,807
21	(c)	Guntakal-Mysore frontier . . . . .	...	-3,88,978	-1,06,655	-52,982
18	(c)	Jodhpur-Hyderabad (British section) . . . . .	-61,598	-49,296	-32,878	-24,471
19	(b)	Lucknow-Bareilly . . . . .	-44,551	-55,364	+23,585	-59,314
21	(g)	Mysore section (Southern Mahratta) . . . . .	-3,83,023	-2,60,404	-5,05,935	-3,63,274
7	(d)	Nilgiri   . . . . .	...	...	...	...
3	(j)	Palanpur-Deesa (British section) . . . . .	-1,031	-4,261	+2,998	+3,134
3	(b) and (k)	Rajputana-Malwa . . . . .	+62,54,835	+62,99,914	+80,34,350	+68,02,117
20	(a) and (e)	South Indian . . . . .	-11,74,088	-8,23,820	-11,04,396	-9,85,862
21	(a)	Southern Mahratta . . . . .	-21,80,778	-17,60,861	-31,26,587	-26,13,740
12	(c)	Tirhoot . . . . .	+3,65,790	+3,41,928	+4,64,835	+4,70,354
<b>TOTAL</b>			<b>+57,55,437</b>	<b>+5,53,728</b>	<b>-42,82,773</b>	<b>-57,80,300</b>
<b>State lines worked by State.</b>						
4	(a) and (c)	Eastern Bengal State . . . . .	+6,93,624	+10,32,643	+23,60,085	+29,51,494
...	...	East Coast State . . . . .	-7,41,621	-11,95,136	-14,41,988	-15,83,702
9	(a), (f), (g) and (h).	North Western State . . . . .	-1,19,59,146	-1,20,62,584	-99,97,343	-78,71,580
10	(a) and (c)	Oudh and Rohilkhand State . . . . .	-2,63,082	-4,84,005	-5,74,985	-11,14,001
...	...	Cherra-Companyganj State . . . . .	-21,677	-11,187	-9,692	-11,301
39	(a)	Jorhat State . . . . .	-18,318	-17,577	-21,386	-14,199
<b>TOTAL</b>			<b>-1,23,10,220</b>	<b>-1,27,37,846</b>	<b>-96,85,309</b>	<b>-71,43,289</b>
<b>Companies' lines guaranteed under old contracts</b>						
3	(a)	Bombay, Baroda and Central India . . . . .	-2,13,741	+4,24,280	-2,73,810	+96,186
7	(a)	Madras . . . . .	-40,70,236	-30,60,920	-47,08,606	-38,50,320
<b>TOTAL</b>			<b>-42,83,977</b>	<b>-26,36,710</b>	<b>-49,82,416</b>	<b>-37,64,134</b>
<b>Companies' lines guaranteed under modern contracts.</b>						
10	(b)	Hardwar-Dehra . . . . .	...	...	...	...
4	(b)	Brahmaputra-Sultanpur . . . . .	...	...	...	...
<b>TOTAL</b>			<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>
<b>District Boards' lines.</b>						
20	(d)	Tanjore District Board† . . . . .	-37,331	-70,947	-37,759	-2,031
<b>TOTAL GAIN OR LOSS TO THE STATE FROM RAILWAY OUTLAY.</b>			<b>-1,08,01,429</b>	<b>-1,47,49,831</b>	<b>-1,89,12,739</b>	<b>-1,66,85,692</b>
<b>Unopen lines</b>						
<b>Unclassified expenditure including collieries, etc.</b>						
...	...	Collieries . . . . .	-42,981	-52,540	-40,019	-12,731
...	...	Unclassified expenditure	-2,61,588	-2,61,790	-2,62,080	-2,64,714
...	...	Guaranteed Companies—				
...	...	Land and supervision‡ . . . . .	-2,94,230	-3,40,040	-3,15,410	-2,88,080
...	...	Subsidized Companies—				
...	...	Land, interest and subsidy‡ . . . . .	-2,90,260	-2,10,000	-1,06,940	-1,82,510
...	...	Miscellaneous railway expenditure‡ . . . . .	+1,08,600	-10,84,350	-10,03,600	-7,16,490
<b>TOTAL</b>			<b>-7,80,459</b>	<b>-18,98,760</b>	<b>-17,88,040</b>	<b>-14,64,525</b>
<b>GRAND TOTAL GAIN OR LOSS TO THE STATE FROM RAILWAY OUTLAY.</b>			<b>-1,15,81,888</b>	<b>-1,66,48,641</b>	<b>-2,07,00,788</b>	<b>-1,81,50,217</b>

\* For the first-half of 1900. The figures for the second-half are included

† This line was purchased by the Tanjore District Board with effect from the 1st January

‡ The figures up to 1895

§ Includes the Khamgaon and Amraoti railways from the 2nd half of 1902.

|| Purchased by the State on the 1st January 1903.



Appendix 13  
Gain or loss to the State

DIX 13—concluded.

for 1902.]

from railway outlay.

37 of Report.

charges, etc., see Statistical Table I incorporated in Appendix 88.)

1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.
-3,16,016	-1,15,158	-2,71,865	-1,62,903	-78,997	-11,495	-81,047	-1,29,456
-18,99,635	-21,55,681	-20,59,332	-12,54,039	+12,22,413	-20,18,325	-16,06,569	-19,24,943
-18,910	-1,738	+35,821	+1,24,264	+1,78,883	+1,21,420	+93,954	+1,20,715
-27,363	-30,671	-13,042	-9,228	+32,039	+45,248	+64,604	+74,158
+49,81,992	+95,51,062	+99,96,978	+1,20,39,680	+1,53,27,450	+1,56,32,623	+1,26,79,508	+1,56,54,820
-69,67,069	-95,62,825	-55,75,787	-40,85,456	-61,69,646	-26,08,937	-32,17,456	-6,09,880
-1,15,656	-1,41,263	-1,22,026	-1,17,352	-19,173*	Amalgamated with the Great Indian Peninsula railway.		
-87,628	-1,74,958	-1,66,875	-1,59,741	-18,686*	Amalgamated with the Great Indian Peninsula railway.		
-24,06,154	-18,47,323	-14,88,075	-11,83,511	+10,53,227	+1,79,562	+3,74,432	-94,622
...	...	...	...	...	-4,19,362	-8,27,059	-9,28,825
-23,39,796	-21,84,065	-23,90,724	-25,40,380	-29,87,026	-30,49,598	-35,53,969	-36,27,467
-4,57,691	-1,11,878	-8,22,452	-8,81,796	+6,98,192	+5,06,109	+4,08,495	+3,80,576
-24,926	+39,388	-1,03,555	-1,07,587	-78,123	-99,456	-61,787	-39,152
-7,044	-14,139	-7,394	-18,917	-1,13,951	+21,138	+59,043	+1,82,209
-60,229	-52,754	+68,627	+1,91,486	+1,31,249	+2,67,133	+2,74,374	+2,42,991
-3,16,483	-1,61,553	-4,92,026	-4,68,945	-3,58,069	-4,22,150	-2,79,959	-2,84,598
...	...	...	...	...	...	...	-91,509
+5,923	+2,938	+2,297	+4,288	+3,826	+1,218	-1,078	-1,534
+43,23,214	+35,98,707	+48,74,715	+76,45,126	+77,52,389	+86,86,362	+73,45,094	+50,51,759
-2,84,755	+95,225	-2,20,467	+98,941	+3,51,629	+12,31,900	+12,69,702	+26,53,126
-22,57,479	-21,77,394	-31,52,138	-25,00,967	-23,00,560	-23,04,445	-22,72,905	-21,45,393
+4,57,509	+5,16,277	+2,72,419	-82,442	-1,02,381	+4,31,008	+5,01,325	+11,01,735
-78,15,491	-49,62,539	-11,79,388	+70,23,762	+1,45,45,645	+1,56,89,451	+1,11,58,702	+1,55,03,978
+31,40,001	+21,26,831	+23,70,683	+22,38,416	+29,77,139	+18,59,498	+23,92,563	+18,12,850
-18,32,974	-18,04,343	-24,28,997	-19,77,308	-7,91,761	Amalgamated with Bengal-Nagpur and Madras railways.		
-1,19,92,606	-86,56,592	-51,02,948	-75,12,384	-1,07,82,695	-37,96,445	-71,80,921	+1,42,984
-17,79,822	-22,80,708	-5,68,520	+1,01,393	-6,36,458	+9,07,963	-64,569	+4,31,557
-13,874	-45,566	-1,36,061	-48,173	-28,792	-22,125	Closed.	
-19,847	-21,978	-16,044	-43,174	-52,005	-40,417	-39,892	-22,814
-1,24,98,622	-1,06,82,856	-58,81,882	-72,41,237	-93,24,572	-10,91,531	-48,92,820	+23,64,577
-4,80,879	-14,18,196	+5,657	+3,74,775	-1,75,394	-62,670	-4,84,309	-2,77,188
-86,07,393	-25,90,167	-29,18,080	-30,41,890	-27,53,881	-25,30,130	-26,50,044	-28,71,967
-40,88,272	-40,08,368	-29,12,423	-26,67,115	-29,29,275	-25,92,800	-31,34,353	-31,49,155
...	...	...	...	...	+22,508	+29,911	+25,502
...	...	...	...	...	+18,961	+36,003	+28,981
...	...	...	...	...	+41,469	+65,944	+54,483
+1,500	+12,337	-22,216	-3,047	-4,952	-3,076	-16,393	+11,691
-2,44,03,875	-1,96,65,595	-99,51,423	-28,81,543	+22,86,846	+1,20,43,513	+31,81,080	+1,47,85,574
...	...	...	...	...	...	...	-5,61,558
+41,871	+17,542	+90,914	+92,757	+1,34,877	+1,91,678	+1,97,749	+1,33,128
-2,87,564	-2,69,474	-2,71,796	-2,90,852	-3,24,506	-5,26,762	-4,46,569	-3,09,624
+15,938	-1,61,611	-2,98,114	-7,26,013	-2,68,754	+1,94,361	+95,692	+1,790
-6,96,486	-9,58,305	-6,75,823	-2,64,004	-70,061	+3,38,465	+68,976	+3,20,515
-5,81,805	-5,87,519	-56,973	-5,16,689	-8,86,011	-6,98,052	-10,55,292	-10,07,603
-14,88,046	-19,59,367	-12,14,794	-17,24,751	-14,14,445	-5,02,315	-11,89,444	-14,24,353
-2,58,91,921	-2,16,24,962	-1,11,63,214	-46,06,294	+8,72,991	+1,15,41,198	+20,41,636	+1,33,61,222

with those of the Great Indian Peninsula railway.  
1900, prior to which date it was known as the Mayavaram-Mutupet railway.  
for official years.

† Total charge . . . . . 3,04,446  
Deduct—Repayment of advances of interest . . . . . 6,24,961

-3,20,515

Appendix 14.  
Expenses under different heads.

Working expenses under different heads of each railway

GAUGE.		5' 6"								
NUMBER.		1		2		3		4		
No.	Railway.	Bengal Central.		Bengal-Nagpur. (a) to (d).		Bombay, Baroda and Central India. (a) & (c) to (f) & (m) & (n).		Eastern Bengal State. (a) to (e).		
Particulars.		1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	
Engineering.	1 General Superintendence . . . . . Ra.	15,771	16,556	1,84,340	2,05,376	1,45,388	1,40,969	1,56,898	1,66,295	
	2 Maintenance of permanent-way {	Wages . . . . .	21,904	25,375	3,41,187	3,87,500	2,25,095	2,21,761	2,31,371	2,43,415
		Materials . . . . .	81,376	88,607	1,73,123	1,17,873	3,26,318	3,16,823	5,04,884	2,54,370
	3 Repairs of bridges, etc. . . . .	3,261	7,033	1,71,421	1,84,434	91,340	92,061	65,310	95,187	
	4 Conservancy of rivers . . . . .	...	...	...	...	...	...	1,614	1,610	
	5 Repairs of stations and buildings . . . . .	9,991	10,733	1,04,642	1,00,382	93,743	1,06,356	1,64,690	2,10,458	
6	TOTAL* . . . . .	1,34,443	1,21,909	10,37,696	9,78,412	10,12,053	9,15,258	12,65,584	10,99,920	
Locomotive.	7 General Superintendence . . . . .	7,323	7,529	1,19,562	1,19,670	1,12,818	1,03,647	91,900	92,406	
	8 Wages of drivers and firemen, fuelling, cleaning engines, etc. . . . .	12,874	16,383	3,15,903	3,12,716	3,07,270	2,77,240	3,06,157	2,27,084	
	9 Fuel . . . . .	25,934	39,800	2,09,991	2,03,409	8,21,134	5,44,210	3,01,573	3,64,402	
	10 Water . . . . .	1,823	2,308	31,818	28,350	67,834	43,010	19,663	23,943	
	11 Oil, tallow and other stores . . . . .	3,637	4,456	29,746	45,379	44,267	40,120	37,035	42,243	
	12 Maintenance and {	Loco. engines . . . . .	24,002	36,059	2,83,381	2,74,738	5,22,644	4,66,194	3,78,336	1,95,927
		Machinery . . . . .	594	570	32,527	23,054	42,419	43,920	32,151	66,920
13	TOTAL* . . . . .	80,775	1,11,443	12,59,619	12,36,067	18,25,875	15,68,666	12,50,193	11,09,877	
Carriage and Wagon.	14 General Superintendence . . . . .	3,710	3,711	23,605	29,708	40,504	39,509	46,977	48,241	
	15 Repairs and renewal of {	Coaching vehicles . . . . .	17,958	12,696	63,406	79,880	2,41,262	2,19,020	3,01,213	1,66,922
		Goods . . . . .	9,926	12,235	1,01,227	83,476	3,36,218	2,74,189	1,14,005	1,21,621
		Machinery . . . . .	340	222	3,421	3,336	16,873	18,045	4,571	6,349
	16 Cleaning and oiling . . . . .	5,372	5,338	96,787	91,841	53,641	53,977	33,853	37,338	
17	TOTAL* . . . . .	37,306	34,203	2,96,371	2,90,351	6,62,034	6,12,142	5,13,677	4,15,255	
Traffic.	18 General Superintendence . . . . .	11,964	12,878	1,23,973	1,28,237	93,303	89,143	1,63,299	1,60,559	
	19 Station staff . . . . .	34,215	52,846	2,87,490	2,90,020	3,44,872	3,28,993	5,56,213	6,39,476	
	20 Train staff . . . . .	6,122	7,670	87,530	98,430	88,298	81,238	1,12,364	1,18,168	
	21 Fuel, lighting and general stores . . . . .	5,467	6,645	65,937	86,176	1,18,949	77,541	1,08,573	1,06,137	
	22 Clothing . . . . .	11	992	8,107	1,916	14,094	7,895	8,431	9,607	
	23 Printing, stationery and tickets . . . . .	6,519	5,428	48,784	33,234	45,881	42,290	50,110	46,574	
	24 Charges for delivery and collection of goods . . . . .	...	...	1,177	1,072	...	...	1,000	4,110	
	25	TOTAL* . . . . .	67,535	89,746	7,07,653	7,38,678	7,19,366	6,70,630	10,21,223	11,00,460
General.	26 Home expenditure or general administration . . . . .	19,589	19,043	1,48,119	1,51,561	28,337	26,971	25,417	...	
	27 Agent's Office . . . . .	14,934	14,589	45,974	45,896	25,919	21,563	46,746	47,344	
	28 Audit, accounts and pay office . . . . .	16,588	17,413	1,14,896	1,19,748	1,00,135	95,832	1,07,947	1,05,438	
	29 Stores Department . . . . .	2,343	2,327	25,159	25,599	38,214	37,207	16,661	17,678	
	30 Medical Department . . . . .	2,208	2,351	29,598	30,879	22,442	22,060	25,756	27,073	
	31 Bents and Miscellaneous . . . . .	9,190	8,429	47,698	45,219	37,695	33,616	38,133	32,400	
	32 Police . . . . .	5,017	5,188	22,987	33,298	53,236	45,404	29,259	25,863	
	33 Advertising . . . . .	585	392	2,191	4,277	1,281	819	2,709	3,887	
	34 Electric telegraph . . . . .	12,301	19,430	1,87,270	1,44,132	1,21,941	1,13,899	1,16,291	1,19,932	
	35	TOTAL* . . . . .	82,763	82,128	5,74,331	5,96,786	4,30,906	4,02,322	4,01,209	3,84,309
Miscellaneous.	36 Law charges . . . . .	1,784	540	2,004	1,790	2,331	1,230	3,154	2,871	
	37 Compensation . . . . .	265	3,185	6,169	2,578	10,912	13,137	38,458	13,059	
	38 Rates and taxes . . . . .	2,076	2,257	27,657	11,107	12,535	12,563	16,832	16,497	
	39 Payments to other lines . . . . .	27,869	1,07,754	1,11,703	2,29,190	29,051	10,721	28,726	1,13,954	
	40	TOTAL* . . . . .	37,815	1,21,618	3,05,024	3,64,503	1,23,458	90,696	1,32,811	2,33,875
	41 TOTAL WORKING EXPENSES EXCLUDING STEAM-BOAT† . . . . .	4,40,636	5,60,446	41,80,694	42,05,299	48,35,009	42,38,897	46,37,697	43,43,696	
42 Steam-boat service . . . . .	...	...	75,366	66,936	...	...	2,93,923	2,91,028		
	GRAND TOTAL WORKING EXPENSES† . . . . .	4,40,636	5,60,446	42,56,060	42,72,235	48,35,009	43,38,397	49,31,620	46,34,724	

\* Includes all other items of expenditure not enumerated.  
† Includes special contribution to the Provident Fund.

(by systems) during each half-year of 1903.

5' 6"														3' 3 3/4"		No.
5		6		7		8		9		10		3				
East Indian. (a) to (d).		Great Indian Peninsula. (a) to (f).		Madras. (a) to (e).		Nizam's Guaranteed State. (a) & (b).		North Western State. (a) to (h).		Oudh and Rohilkhand State. (a) to (c).		Rajputana-Malwa. (b) & (g) to (i).				
1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.			
4,63,119	4,70,010	3,45,914	3,58,561	1,97,304	1,98,781	45,572	45,909	5,09,181	5,25,196	1,57,868	1,56,391	1,79,020	1,85,900	1		
5,26,465	5,30,319	5,18,047	5,21,927	2,43,235	2,84,154	64,598	67,857	8,37,081	8,31,122	1,47,296	1,85,965	2,69,034	2,22,174	2		
7,84,766	8,61,233	7,30,664	2,60,195	3,22,904	8,36,493	78,166	42,134	11,44,662	5,09,088	1,32,155	8,64,804	4,74,724	4,12,652	3		
3,14,057	2,68,417	4,15,690	2,98,698	1,33,889	1,94,964	26,480	44,935	2,59,504	3,40,418	1,48,090	94,625	1,09,414	1,21,069	4		
...	...	...	...	...	...	...	111	47,752	51,234	1,553	11,271	...	...	5		
5,28,763	4,88,896	3,18,935	2,77,699	1,10,262	90,161	17,787	17,942	5,10,317	3,84,215	1,17,323	1,08,876	1,14,148	1,38,378	6		
28,57,861	28,87,207	25,06,344	19,24,799	12,24,479	18,12,372	2,60,684	2,50,310	37,79,998	31,64,241	7,89,085	10,49,758	12,98,542	11,88,715	7		
3,26,088	3,22,914	2,77,402	2,84,583	94,174	1,06,844	25,942	23,813	2,98,963	2,96,610	73,928	73,391	1,41,282	1,39,253	8		
11,67,542	10,48,986	14,16,899	11,98,669	2,90,494	2,90,375	61,833	52,511	7,29,766	7,51,668	1,45,604	1,51,962	3,80,943	3,70,245	9		
5,14,276	4,40,545	21,88,445	17,07,810	6,95,201	7,40,248	71,690	54,178	21,84,641	24,02,774	4,27,526	4,03,754	8,09,508	7,21,306	10		
59,564	61,191	1,72,041	1,29,496	41,085	45,413	9,363	7,571	1,02,348	1,08,183	14,541	16,384	55,472	54,693	11		
1,81,801	1,63,499	1,95,754	1,50,682	54,306	55,985	11,876	9,092	1,07,750	1,14,493	35,370	31,331	53,489	51,738	12		
11,15,096	11,11,436	14,82,274	15,71,154	4,12,004	6,32,907	2,51,682	47,298	15,53,058	10,85,911	1,61,614	1,69,199	5,45,128	6,15,071	13		
71,357	75,001	82,360	1,01,223	15,397	16,653	6,912	5,949	88,310	1,20,402	13,402	19,699	53,336	59,269	14		
40,22,491	36,85,103	65,40,192	57,01,733	17,93,987	21,27,657	4,49,204	2,17,777	56,17,080	54,57,961	11,10,027	10,37,680	21,46,535	20,79,333	15		
79,238	78,111	90,776	86,663	23,543	26,711	4,295	6,010	43,528	54,251	16,211	16,333	80,737	53,111	16		
75,324	1,15,121	5,04,519	5,80,749	1,88,947	2,35,346	13,647	22,202	4,02,201	4,72,759	1,74,434	1,46,766	3,00,732	2,92,602	17		
3,73,803	4,75,263	6,52,692	5,84,808	2,26,654	1,95,182	52,970	27,795	2,05,593	3,19,976	54,628	55,896	4,05,452	3,56,982	18		
59,132	67,098	38,437	56,074	10,275	11,375	1,636	1,576	14,023	14,007	4,989	5,781	21,216	24,351	19		
92,331	69,789	2,03,851	1,87,685	52,308	54,805	12,899	13,295	1,39,561	1,49,476	44,620	48,025	63,950	69,247	20		
6,83,531	8,09,636	14,99,366	15,01,607	5,11,878	5,75,813	86,011	70,944	8,40,215	10,24,154	2,96,220	2,74,627	3,46,568	3,06,270	21		
3,24,334	3,24,165	2,29,456	2,23,503	1,11,591	1,24,369	15,761	15,685	2,56,993	2,42,742	86,570	89,445	1,16,553	1,19,475	22		
13,85,350	13,32,292	9,40,934	9,02,388	3,24,415	3,39,250	53,220	58,104	9,55,231	10,05,645	3,18,015	3,26,941	4,24,025	4,35,954	23		
5,71,320	5,52,284	5,82,850	5,59,352	1,00,524	1,01,057	22,239	20,169	3,61,016	3,75,570	99,708	1,07,476	1,09,958	1,08,563	24		
2,50,822	2,41,225	2,91,918	2,88,612	69,161	75,842	14,881	12,905	2,19,568	2,42,725	79,843	69,628	1,49,041	1,04,082	25		
31,706	19,323	26,687	32,148	14,690	5,719	—109	2,482	18,372	42,172	14,701	9,386	17,352	10,320	26		
1,36,813	1,15,642	1,30,000	1,47,309	72,954	70,445	7,031	6,417	80,555	95,149	40,831	35,979	56,291	55,755	27		
4,853	4,961	5,013	4,444	4,531	1,070	...	139	* 254	197	1,694	1,619	...	...	28		
27,65,949	26,31,103	22,60,459	22,41,112	7,22,281	7,47,861	1,30,403	1,29,706	19,34,524	20,30,910	6,81,646	6,67,585	8,86,604	8,89,216	29		
2,07,303	1,95,355	1,72,402	1,83,198	53,939	59,546	16,005	19,746	38,900	...	18,900	...	35,631	36,396	30		
63,394	64,577	71,229	70,915	34,338	37,933	8,294	8,333	65,534	68,344	31,206	32,963	31,926	28,287	31		
2,25,987	2,23,137	2,46,117	2,48,930	1,06,505	1,23,906	32,386	32,622	2,17,977	2,11,553	86,336	86,298	1,23,897	1,27,151	32		
76,814	75,976	72,744	72,326	15,332	16,773	6,606	6,559	53,855	53,972	19,713	21,563	47,897	50,005	33		
72,503	73,919	47,205	47,519	19,191	22,566	4,840	6,295	51,407	51,790	13,500	14,435	27,841	29,365	34		
1,06,548	88,537	63,376	66,122	24,376	27,585	8,203	9,897	66,706	71,266	26,652	35,637	46,733	44,704	35		
1,18,636	1,08,235	97,651	96,524	43,576	45,752	17,364	17,250	60,149	64,198	21,768	21,720	64,500	58,591	36		
3,474	5,735	5,379	3,478	3,559	3,313	37	391	3,625	1,831	1,221	2,314	1,610	1,105	37		
3,61,377	3,59,554	2,60,847	2,94,125	1,20,164	1,28,629	17,773	17,632	3,06,596	3,06,009	90,453	97,625	1,50,012	1,56,315	38		
12,39,147	11,99,093	10,65,753	10,90,983	4,65,242	5,14,706	1,12,009	1,18,752	8,75,647	8,30,563	3,09,960	3,12,876	5,32,043	5,32,516	39		
8,062	8,148	4,320	2,207	1,584	3,616	336	316	90	—179	—11	414	2,931	1,727	40		
67,830	41,948	24,006	1,07,762	2,295	—797	215	556	41,717	17,131	7,577	13,167	12,998	17,099	41		
50,636	50,329	31,341	34,011	6,575	8,879	309	49	23,953	25,765	3,562	1,951	15,762	16,954	42		
3,74,648	3,28,743	5,32,013	2,80,158	...	...	9,514	10,989	58,633	42,631	60,137	1,01,131	25,212	14,468	43		
5,90,844	5,23,397	8,82,038	7,82,770	3,03,686	2,06,393	32,235	26,791	8,36,980	3,14,716	1,38,633	1,81,323	1,22,954	1,22,372	44		
1,23,95,027	1,20,26,862	1,47,74,141	1,32,43,004	50,21,553	54,84,802	10,97,225	8,85,910	1,33,84,439	1,22,22,545	33,25,571	35,23,849	53,81,715	57,29,545	45		
1,09,111	92,379	...	...	...	...	...	...	11,881	13,183	...	...	...	...	46		
1,25,04,188	1,21,19,241	1,47,74,141	1,32,43,004	50,21,553	54,84,802	10,97,225	8,85,910	1,33,84,439	1,22,22,545	33,25,571	35,23,849	53,81,715	57,29,545	47		

§ Including the Gwalior Light railway, details for which are not given.

|| Including the "Carriage and wagon expenses" of the Gwalior Light railway as the figures cannot be separated.

Appendix 14.  
Expenses under different heads.

APPEN

(Appendix 45 in

Working expenses under different heads of each railway

GAUGE		3' 3 1/2"										
NUMBER.		8		11		12		13		14		
No.	Railway.	Hyderabad-Godavari Valley. (c).		Assam-Bengal. (a) & (b).		Bengal and North-Western. (a) to (c).		Bengal Doocars (a) & (b).		Bhavnagar-Gondal Junagad Porbandar (c) to (d).		
		1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	
Particulars.												
Engineering.	1 General Superintendence . . . . . Rs.	41,448	41,767	74,700	78,868	1,23,607	1,33,620	5,107	5,839	31,557	29,874	
	2 Maintenance of permanent-way {	Wages ..	64,191	67,282	1,04,328	1,12,208	1,20,747	1,22,341	12,880	18,573	51,870	62,997
		Materials ..	20,159	15,495	12,265	12,641	1,74,431	1,56,249	5,361	19,236	32,243	19,132
	3 Repairs of bridges, etc. . . . . "	22,253	51,837	34,873	29,136	83,814	1,10,389	3,405	1,203	1,525	1,283	
	4 Conservancy of rivers . . . . . "	...	...	...	...	13,409	3,948	...	...	...	...	
	5 Repairs of stations and buildings . . . . . "	14,916	21,693	26,289	23,232	65,955	61,308	1,438	1,407	4,306	5,051	
6 TOTAL* . . . . . "	1,94,527	2,50,869	2,69,444	2,71,160	6,39,989	6,21,444	29,168	35,888	1,33,170	1,05,228		
Locomotive.	7 General Superintendence . . . . . "	29,022	28,786	30,033	32,365	51,819	49,635	2,909	3,404	16,582	16,104	
	8 Wages of drivers and firemen, fuelling, cleaning engines, etc. . . . . "	40,034	37,824	38,456	36,798	1,17,014	1,04,895	5,340	4,810	23,436	21,261	
	9 Fuel . . . . . "	54,772	46,968	64,619	60,049	2,54,440	2,00,296	18,573	13,349	60,153	48,286	
	10 Water . . . . . "	7,460	6,619	8,125	6,995	23,007	17,762	1,579	1,353	3,069	2,829	
	11 Oil, tallow and other stores . . . . . "	7,466	5,899	5,869	5,578	26,704	23,072	1,411	1,461	5,559	4,318	
	12 Maintenance and renewal of {	25,529	20,140	43,095	47,298	1,10,059	1,15,290	4,958	6,343	30,885	26,129	
	Locomotive engines ..	4,897	6,139	593	649	1,707	4,272	2,003	1,242	2,044	2,057	
	Machinery . . . . . "	...	...	...	...	...	...	...	...	...		
13 TOTAL* . . . . . "	1,64,433	1,71,418	2,10,522	2,07,331	6,32,666	5,68,357	37,531	35,530	1,52,178	1,17,881		
Carriage and Wagon.	14 General Superintendence . . . . . "	3,595	3,359	10,013	10,458	18,155	17,514	1,455	1,701	4,939	4,753	
	15 Repairs and renewal of {	Coaching vehicles ..	6,738	6,120	16,946	19,418	41,133	37,684	1,638	1,593	13,835	8,298
		Goods ..	3,771	2,995	21,571	30,036	53,889	50,372	3,836	2,413	9,866	5,304
		Machinery . . . . . "	1,388	1,260	892	260	2,688	2,912	3	12	1,022	1,028
	16 Cleaning and oiling . . . . . "	6,851	7,358	6,326	5,499	36,533	31,267	2,758	2,827	3,994	3,875	
17 TOTAL* . . . . . "	22,188	21,093	55,979	66,536	1,41,642	1,33,944	9,907	8,688	33,895	23,434		
Traffic.	18 General Superintendence . . . . . "	17,612	17,398	31,432	32,919	77,400	77,725	4,525	5,030	15,417	22,737	
	19 Station staff . . . . . "	44,664	46,068	69,619	92,790	2,00,535	1,94,779	11,972	16,277	48,505	38,654	
	20 Train staff . . . . . "	17,735	17,149	17,691	16,074	58,400	53,053	2,142	2,478	5,593	4,896	
	21 Fuel, lighting and General stores . . . . . "	13,137	14,655	16,409	17,419	50,696	50,484	1,154	1,339	13,864	7,440	
	22 Clothing . . . . . "	140	1,877	1,503	1,403	12,829	5,147	133	121	308	101	
	23 Printing, stationery and tickets . . . . . "	5,817	6,136	5,720	6,694	27,635	25,414	1,219	2,107	8,329	7,100	
	24 Charges for delivery and collection of goods ..	464	25	...	...	18,136	12,749	...	...	...	...	
	25 TOTAL* . . . . . "	1,07,775	1,12,209	1,42,932	1,67,825	4,55,029	4,35,561	21,414	27,518	99,071	85,665	
General.	26 Home expenditure or General administration ..	17,318	21,982	48,571	45,043	61,571	62,819	12,969	16,686	2,420	2,503	
	27 Agent's Office . . . . . "	9,235	9,278	25,123	27,908	19,980	27,315	13,569	18,824	12,359	12,490	
	28 Audit, accounts and pay office . . . . . "	36,081	36,316	49,952	52,714	85,665	88,574	5,318	6,448	25,914	25,944	
	29 Stores Department . . . . . "	7,317	7,300	17,519	19,693	12,261	12,347	879	1,227	6,034	5,892	
	30 Medical Department . . . . . "	3,389	9,533	13,014	14,007	13,128	12,887	942	935	7,893	7,806	
	31 Rents and Miscellaneous . . . . . "	5,295	10,157	5,575	4,246	17,316	15,642	705	1,477	6,624	4,872	
	32 Police . . . . . "	14,950	15,027	8,476	7,781	25,313	25,682	313	457	17,637	17,187	
	33 Advertising . . . . . "	40	847	375	529	753	1,202	100	72	8	246	
	34 Electric telegraph . . . . . "	18,699	18,950	36,254	40,837	75,010	75,292	6,930	8,086	21,542	20,308	
	35 TOTAL* . . . . . "	1,19,112	1,29,228	2,04,888	2,12,784	2,95,199	3,09,478	42,040	54,290	1,00,488	93,666	
Miscellaneous.	36 Law charges . . . . . "	275	263	462	772	4,759	3,191	201	461	212	132	
	37 Compensation . . . . . "	80	222	1,772	1,059	2,135	5,109	11	887	77	57	
	38 Rates and taxes . . . . . "	...	...	2,492	2,097	2,913	2,865	209	114	19	10	
	39 Payments to other lines . . . . . "	2,540	2,468	1,954	491	42,620	21,821	6,719	3,431	4,280	3,196	
	40 TOTAL* . . . . . "	12,500	9,025	45,194	56,770	1,18,641	1,09,407	9,358	7,818	21,122	17,273	
41 TOTAL WORKING EXPENSES EXCLUDING STEAM-BOAT†	6,24,842	7,03,619	9,28,959	9,82,306	23,06,113	22,00,862	1,49,418	1,69,727	5,39,924	4,42,197		
42 Steam-boat service . . . . . "	...	...	8,764	10,187	1,72,759	1,70,298	3,113	5,842	...	...		
GRAND TOTAL WORKING EXPENSES‡	6,24,842	7,03,619	9,43,177	10,14,819	24,78,872	23,71,160	1,52,531	1,75,569	5,39,924	4,42,197		

\* Includes all other items of expenditure not enumerated.  
 † Includes special contribution to the Provident Fund.  
 ‡ Including the Noakhali (Bengal) railway, details for which are not available.

DIX 14—continued.

Appendix 14.  
Expenses under different heads.

Report for 1902.)

(by systems) during each half-year of 1903—contd.

8' 3 1/2"														No.
15		16		17		18		19		20		21		
Burma.		Deoghur. §		Dibru-Sadiya (a) and (b). ¶		Jodhpur-Bikaner (a) to (c).		Robilkund and Kumaon (a) to (c).		South Indian (a) to (e).		Southern Mahratta (a) to (h).		
1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	
1,49,581	1,63,004	...	...	8,845	9,107	19,476	19,327	19,700	18,959	1,30,181	1,38,577	1,35,030	1,33,851	1
3,41,581	3,74,671	...	...	17,912	18,498	80,761	82,602	25,296	25,870	1,24,692	1,38,823	2,04,624	2,08,796	
2,49,957	2,12,535	...	...	29,119	18,008	-26,601	88,236	29,791	28,134	87,103	2,18,870	1,15,133	78,772	3
1,17,247	98,777	...	...	9,785	5,179	13,011	4,591	13,778	10,880	22,930	22,046	45,548	83,258	
184	266	...	...	...	...	...	...	1,888	-654	...	...	...	...	5
1,38,661	1,03,293	...	...	5,868	11,453	8,302	8,933	15,471	7,581	84,840	55,231	49,449	75,491	
10,77,728	10,62,197	6,047		1,02,341	1,03,865	1,03,654	2,09,458	1,11,735	98,755	3,95,753	5,39,751	6,03,740	6,53,060	7
1,19,822	1,82,701	...	...	4,360	4,983	15,928	15,984	15,538	14,420	75,302	78,898	98,852	98,173	
8,66,827	8,65,018	...	...	7,697	7,683	24,216	23,429	16,048	14,465	1,68,571	1,78,761	1,92,056	1,89,968	9
5,61,682	4,95,341	...	...	17,935	15,899	1,50,072	1,25,586	47,972	86,678	3,95,922	3,87,418	2,85,581	2,88,853	
38,672	38,180	...	...	1,594	1,872	10,480	10,249	2,693	2,893	14,701	16,899	25,015	24,778	11
45,812	44,783	...	...	1,754	1,868	13,067	10,230	4,224	8,675	25,085	26,593	15,907	16,802	
2,59,159	3,53,435	...	...	26,272	15,460	48,369	43,484	17,771	15,536	1,62,697	3,77,877	2,60,169	2,26,109	13
19,629	22,414	...	...	2,739	2,173	8,231	4,096	2,540	2,980	13,985	19,166	32,400	30,336	
15,03,396	15,18,742	7,771		62,365	49,939	3,02,695	2,54,949	1,18,199	97,867	9,01,972	11,43,310	10,44,818	10,09,592	15
34,683	39,414	...	...	2,543	2,925	3,919	3,586	6,691	7,307	25,029	24,618	31,362	30,741	
1,00,692	1,15,565	...	...	9,716	3,722	12,588	10,662	10,670	10,995	88,028	60,225	1,02,107	96,826	17
1,10,752	1,18,195	...	...	17,101	17,814	12,586	9,005	13,529	12,713	1,20,618	93,987	1,54,613	1,44,270	
7,680	8,898	...	...	1,174	1,180	617	897	713	1,034	4,815	5,918	4,728	3,927	19
39,718	39,354	...	...	2,993	3,993	8,514	6,190	5,231	5,214	29,387	29,938	20,155	22,226	
2,98,530	3,26,681	4,382		27,522	29,639	38,264	29,959	37,015	37,437	2,64,494	2,08,499	3,13,816	2,99,613	21
1,00,935	1,07,939	...	...	6,496	6,419	15,353	15,409	16,643	15,472	76,271	77,142	75,669	76,883	
2,95,615	3,11,962	...	...	12,937	12,980	37,603	33,894	30,648	28,161	2,08,208	2,17,040	1,94,720	1,86,664	23
82,837	81,648	...	...	3,436	3,417	6,630	6,588	7,842	7,213	50,358	51,428	67,975	65,192	
95,341	77,744	...	...	904	621	10,726	10,024	8,192	7,673	38,233	45,181	44,711	40,152	25
11,211	11,076	...	...	...	2	532	1,034	574	602	11,094	1,472	10,250	6,550	
48,015	55,756	...	...	2,165	3,001	9,586	8,734	7,628	4,854	27,854	17,896	31,699	30,631	27
...	858	...	...	4,142	6,182	...	...	...	...	28	6	124	2	
6,41,301	6,64,161	7,876		31,326	33,892	81,579	76,392	77,292	70,619	4,23,207	4,20,875	4,56,019	4,39,407	29
1,04,619	1,03,690	...	...	12,921	12,921	...	...	19,648	20,874	46,454	47,686	94,617	98,200	
34,276	38,062	...	...	6,167	6,062	4,311	3,707	7,762	7,803	25,757	30,160	28,919	45,803	31
68,318	89,170	...	...	7,190	7,559	19,909	19,078	20,906	20,217	88,602	87,764	88,258	89,005	
25,111	25,571	...	...	3,049	3,165	3,279	3,395	5,750	5,729	21,161	21,891	23,379	23,228	33
21,483	22,276	...	...	2,049	2,060	2,736	3,799	2,036	2,270	20,810	20,920	17,504	18,690	
8,340	10,343	...	...	1,134	3,084	40	162	7,201	6,634	16,084	18,103	18,572	17,200	35
57,248	54,256	...	...	...	...	2,808	2,691	7,089	5,400	29,105	27,184	81,625	48,627	
4,768	5,428	...	...	16	...	56	97	289	493	486	1,241	931	1,383	37
94,421	94,045	...	...	6,033	5,702	26,513	25,910	14,570	14,461	69,573	71,249	1,08,491	1,10,681	
4,49,959	4,55,467	2,326		39,712	41,801	63,173	61,483	85,551	85,791	3,65,431	3,73,188	4,62,237	4,52,835	39
2,783	3,925	...	...	634	620	...	...	227	1,740	622	87	1,604	3,443	
3,981	2,438	...	...	80	61	9,439	285	721	966	1,634	1,092	1,344	6,057	41
1,806	26,485	...	...	...	36	...	...	80	172	12,509	14,181	8,048	3,571	
...	...	...	...	...	...	26,994	23,079	...	...	8,076	10,364	3,820	9,934	43
83,205	1,11,272	1,474		714	718	43,397	29,358	5,791	13,324	70,748	74,559	71,492	89,442	
40,59,114	41,83,460	29,836		2,65,498	2,60,590	6,32,762	6,91,597	14,64,246	14,26,404	24,21,605	27,59,682	29,52,122	29,43,949	45
1,46,620	50,962	...	...	...	...	...	...	...	...	...	...	...	...	
42,05,784	41,89,422	29,836		2,65,498	2,60,590	6,32,762	6,91,597	14,64,246	14,26,404	24,21,605	27,59,682	29,52,122	29,43,949	47

§ Details not available.

¶ Details exclude the Ledo and Tikak Margherita Colliery railway.

|| Including the Powayan Light railway, detailed information for which is not available.

Appendix 14.  
Expenses under different heads.

APPEN

(Appendix 45 in

## Working expenses under different heads of each railway

No.	GAUGE.	NUMBER.	Railway.	Particulars.	3' 3 1/2"		2' 6"							
					22		24		25		26		30	
					Udaipur-Chitor.		Barsi Light.		Bukhtiar-pore- Behar Light. †		Kalka-Simla.		Morvi.	
					1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.
Engineering.	1			General Superintendence . . . . .	3,353	3,135	2,132	2,154	...	...	...	...	2,130	2,291
	2			Maintenance of permanent-way { Wages . . . . .	7,619	7,768	2,554	2,565	...	...	...	...	9,486	9,561
				{ Materials . . . . .	22	...	50	58	...	...	...	...	1,024	892
	3			Repairs of bridges, etc. . . . .	609	77	205	207	...	...	...	...	480	180
	4			Conservancy of rivers . . . . .	...	...	...	...	...	...	...	...	...	...
	5			Repairs of stations and buildings . . . . .	1,194	710	575	642	...	...	...	...	103	307
6			TOTAL* . . . . .	13,552	12,094	5,516	5,621	...	3,668	...	...	14,362	13,522	
Locomotive.	7			General Superintendence . . . . .	3,155	3,031	907	928	...	...	...	858	2,603	2,667
	8			Wages of drivers and firemen, fuelling, cleaning engines, etc. . . . .	1,534	1,367	1,482	1,468	...	...	...	2,691	3,213	3,348
	9			Fuel . . . . .	2,164	7,949	2,148	1,793	...	...	...	6,049	16,644	16,232
	10			Water . . . . .	667	713	760	861	...	...	...	200	538	627
	11			Oil, tallow and other stores . . . . .	457	456	545	541	...	...	...	1,419	949	1,150
	12			Maintenance and { Locomotive engines . . . . .	5,155	4,993	2,502	2,190	...	...	...	...	3,084	3,644
{ renewal of Machinery . . . . .				643	393	27	186	...	...	...	168	3,840	4,805	
13			TOTAL* . . . . .	19,840	18,902	8,341	7,967	...	14,251	...	12,624	30,828	32,779	
Carriage and wagon.	14			General Superintendence . . . . .	441	448	440	498	...	...	...	851	1,829	1,862
	15			Repairs and { Coaching vehicles . . . . .	3,353	4,200	412	400	...	...	...	72	865	959
				{ renewal of Goods . . . . .	1,052	946	100	88	...	...	...	31	431	641
				{ Machinery . . . . .	12	26	16	144	...	...	...	...	2,180	1,179
				16			Cleaning and oiling . . . . .	482	540	439	406	...	...	...
17			TOTAL* . . . . .	5,384	6,209	1,407	1,476	...	489	...	1,003	5,662	4,947	
Traffic.	18			General Superintendence . . . . .	3,562	3,175	682	642	...	...	...	1,403	2,361	2,685
	19			Station staff . . . . .	3,338	3,254	3,227	3,160	...	...	...	2,068	6,855	7,019
	20			Train staff . . . . .	411	344	291	296	...	...	...	1,498	1,292	1,285
	21			Fuel, lighting and general stores . . . . .	889	575	193	215	...	...	...	179	1,980	1,755
	22			Clothing . . . . .	96	320	84	68	...	...	...	194	231	367
	23			Printing, stationery and tickets . . . . .	581	616	432	447	...	...	...	766	1,303	1,706
	24			Charges for delivery and collection of goods . . . . .	...	...	2,101	2,049	...	...	...	...	65	299
	25			TOTAL* . . . . .	9,449	8,850	6,960	6,377	...	9,153	...	6,208	14,255	15,505
General.	26			Home expenditure and general administration,, . . . . .	...	...	3,286	2,516	...	...	...	...	...	...
	27			Agent's Office . . . . .	3,078	2,764	3,468	3,419	...	...	...	3,981	2,740	1,969
	28			Audit, accounts and pay office . . . . .	1,647	1,372	600	600	...	...	...	775	3,881	3,343
	29			Stores Department . . . . .	193	185	687	675	...	...	...	...	1,126	1,246
	30			Medical Department . . . . .	423	427	913	783	...	...	...	...	197	41
	31			Rents and Miscellaneous . . . . .	637	368	559	469	...	...	...	...	174	215
	32			Police . . . . .	...	...	225	291	...	...	...	...	2,600	1,800
	33			Advertising . . . . .	...	...	8	...	...	...	...	34	...	...
	34			Electric telegraph . . . . .	1,666	1,599	868	867	...	...	...	283	2,927	2,979
	35			TOTAL* . . . . .	7,644	6,714	15,609	14,620	...	2,970	...	5,073	14,810	12,282
Miscellaneous.	36			Law charges . . . . .	...	...	...	30	...	...	...	...	-21	1
	37			Compensation . . . . .	16	47	185	...	...	...	...	...	15	7
	38			Rates and taxes . . . . .	...	100	1,091	570	...	...	...	...	...	...
	39			Payments to other lines . . . . .	1,174	1,003	502	496	...	...	...	...	...	...
	40			TOTAL* . . . . .	1,583	1,150	1,778	1,096	...	...	...	122	616	-4,278
41			TOTAL WORKING EXPENSES EXCLUDING STEAM-BOAT. †	57,452	53,919	39,611	37,657	...	20,680	...	25,080	79,042	74,257	
42			Steam-boat service . . . . .	...	...	...	...	...	...	...	...	...	...	
			GRAND TOTAL WORKING EXPENSES ‡	57,452	53,919	39,611	37,657	...	20,680	...	25,080	79,042	74,257	

\* Includes all other items of expenditure not enumerated.

† Includes special contribution to the Provident Fund.

‡ Opened for traffic on the 1st July 1903.

§ Details not available.

|| Opened for traffic on the 9th November 1903.



DIX 14—concluded.

Report for 1902.)

(by systems) during each half-year of 1903--concl.

Appendix 14.  
Expenses under different heads.

2' 6"						2' 0"								No.
31		33		34		36		37		38		39		
Ranaghat-Krishnagar Light.		Tarakeshwar-Magra Light.		Tezpur-Balipara Light.		Darjeeling-Himalayan.		Howrah-Amta Light.		Howrah-Sheakhala Light.*		Jorhat.*		
1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	
...	...	1,297	1,271	1,649	1,791	12,955	17,814	...	...	...	...	...	...	1
...	...	2,664	2,659	2,006	1,907	12,080	12,075	...	...	...	...	...	...	2
...	...	623	669	2,572	1,831	16,454	24,896	...	...	...	...	...	...	3
...	...	96	159	227	413	6,818	4,963	...	...	...	...	...	...	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
...	...	833	547	893	1,972	12,064	16,597	...	...	...	...	...	...	6
5,141	5,216	5,182	5,361	8,175	8,161	65,224	79,926	13,947	14,415	7,597	5,897	13,288	12,493	7
...	...	595	606	930	1,050	3,686	4,251	...	...	...	...	...	...	8
...	...	1,190	1,091	865	887	18,076	15,755	...	...	...	...	...	...	9
...	...	2,566	2,589	2,760	2,706	37,532	27,699	...	...	...	...	...	...	10
...	...	861	347	37	15	524	313	...	...	...	...	...	...	11
...	...	520	500	340	303	4,657	4,230	...	...	...	...	...	...	12
...	...	929	1,210	2,025	2,649	16,671	15,409	...	...	...	...	...	...	13
...	...	...	...	...	...	196	229	...	...	...	...	...	...	14
5,722	4,518	6,754	6,943	6,958	7,610	93,927	78,866	18,980	16,822	4,929	3,580	5,326	18,877	15
...	...	588	587	705	825	3,181	3,315	...	...	...	...	...	...	16
...	...	1,171	1,876	461	1,199	5,475	3,883	...	...	...	...	...	...	17
...	...	957	189	523	613	14,204	10,368	...	...	...	...	...	...	18
...	...	...	...	...	...	60	65	...	...	...	...	...	...	19
...	...	301	261	344	315	2,270	2,016	...	...	...	...	...	...	20
1,230	1,210	3,027	2,912	2,083	2,952	25,190	25,177	6,222	5,120	1,626	1,460	488	-3,971	21
...	...	529	546	1,468	1,710	3,133	3,554	...	...	...	...	...	...	22
...	...	3,313	3,371	2,593	2,737	16,864	15,054	...	...	...	...	...	...	23
...	...	822	815	586	586	7,192	7,001	...	...	...	...	...	...	24
...	...	585	410	296	109	4,246	2,614	...	...	...	...	...	...	25
...	...	20	25	35	...	1,012	565	...	...	...	...	...	...	26
...	...	1,168	1,135	481	206	1,197	779	...	...	...	...	...	...	27
...	...	...	...	2,063	2,934	...	...	...	...	...	...	...	...	28
11,064	11,686	8,116	8,002	8,169	8,322	38,485	34,075	22,571	22,923	9,805	10,760	9,590	7,788	29
...	...	1,229	1,176	1,664	1,224	11,046	11,052	...	...	...	...	...	...	30
...	...	1,688	1,802	1,530	1,530	14,099	16,075	...	...	...	...	...	...	31
...	...	1,984	1,922	2,306	2,392	9,035	9,315	...	...	...	...	...	...	32
...	...	179	178	124	114	...	...	...	...	...	...	...	...	33
...	...	155	153	480	652	3,706	2,855	...	...	...	...	...	...	34
...	...	339	406	411	286	3,764	3,478	...	...	...	...	...	...	35
...	...	...	...	...	...	...	...	...	...	...	...	...	...	36
...	...	37	44	6	14	305	255	...	...	...	...	...	...	37
...	...	934	933	498	498	4,349	4,370	...	...	...	...	...	...	38
8,314	8,223	6,533	6,626	7,109	6,710	45,304	47,400	7,443	7,052	2,946	3,344	6,265	6,100	39
...	...	407	70	30	30	326	679	...	...	...	...	...	...	40
...	...	30	...	16	3	308	49	...	...	...	...	...	...	41
...	...	...	6	13	613	4,490	4,592	...	...	...	...	...	...	42
...	...	18	36	...	...	...	...	...	...	...	...	...	...	43
...	...	579	183	151	713	7,962	8,604	...	...	...	...	503	370	44
26,579	26,023	30,171	30,027	32,595	34,403	2,72,449	2,72,365	72,725	66,893	27,053	25,041	35,460	41,657	45
...	...	...	...	...	...	...	...	...	...	...	...	...	...	46
26,579	26,023	30,171	30,027	32,595	34,403	2,72,449	2,72,365	72,725	66,893	27,053	25,041	35,460	41,657	47

\* Details not available.



Appendix 15.  
Passenger traffic.

APPENDIX  
[Appendices 14, 15, 16]  
Coaching  
(Referred to in)

YEAR.	Sub-head.	Railway including branches worked.	Year.	NUMBER CARRIED IN HUNDREDS.						EARNINGS IN THOUSANDS.						AVERAGE RATE CHARGED PER MILE. IN PIS.								
				1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total passenger earnings.	Parcel earnings.	Total earnings coaching traffic.	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.	
(a)	Bengal Central	5' 6" gauge.	1899	2,9	23,9	48,5	1,514,6	141,5	1,731,5	7	23	34	5,48	17	6,29	33	6,94	12'00	6'09	3'50	2'92	...	3'04	
			1900	2,3	23,3	49,4	1,639,9	164,2	1,783,1	7	22	35	5,78	17	6,59	24	7,16	14'21	7'40	3'50	3'00	...	3'12	
			1901	1,9	19,5	51,4	1,610,5	192,2	1,802,7	6	23	42	6,24	17	7,12	26	7,71	14'55	7'35	3'47	3'00	...	3'11	
			1902	2,1	18,3	63,9	1,611,7	212,2	1,911,2	7	21	44	6,27	18	7,17	30	7,79	14'13	7'20	3'47	3'00	...	3'10	
			1903	2,8	19,9	73,8	1,639,3	253,2	1,969,0	8	22	47	6,27	21	7,25	33	7,90	14'24	7'21	3'42	3'00	...	3'11	
			Average ...	2,4	21,0	60,2	1,633,3	192,7	1,800,1	7	22	40	6,01	18	6,88	29	7,50	13'53	7'05	3'47	2'98	3'08	...	3'10
			1903 { 1st-half	1,2	10,1	34,3	819,8	124,1	989,5	4	11	21	3,14	11	3,61	13	3,90	14'41	7'32	3'40	3'00	...	3'11	
			2nd-half	1,6	9,8	39,5	819,5	129,1	999,5	4	11	26	3,13	10	3,64	19	4,00	14'03	7'16	3'37	3'00	...	3'11	
			1899	6,6	71,2	27,4	2,815,0	66,7	2,938,9	53	62	37	17,91	3	19,46	65	21,53	13'59	5'78	2'63	1'98	...	2'09	
			1900	9,6	25,4	36,7	3,685,4	37,7	3,693,8	71	85	53	22,36	2	30,46	1,69	34,28	13'06	8'18	3'93	2'11	...	2'20	
1901	11,5	36,6	165,1	5,602,6	90,2	6,100,0	1,21	1,74	1,96	48,91	8	53,70	2,01	58,62	15'07	6'17	3'23	2'28	1'80	...	2'40			
1902	13,3	36,5	149,1	6,107,3	163,7	6,471,8	1,57	1,73	1,94	48,51	13	63,77	1,94	64,83	14'54	5'91	3'24	2'31	1'78	...	2'44			
1903	14,3	39,3	146,1	6,037,5	171,8	6,449,0	1,89	1,94	1,93	47,16	15	63,07	2,20	67,86	14'32	6'45	3'34	2'31	1'72	...	2'46			
Average ...	10,9	32,6	104,9	4,869,5	166,0	5,123,9	1,16	1,37	1,31	33,15	8	42,00	1,74	46,20	14'36	6'49	3'11	2'20	1'76	...	2'32			
1903 { 1st-half	7,3	18,1	73,8	3,110,0	82,9	3,292,1	1,00	91	98	23,81	7	26,77	97	29,07	15'13	6'37	3'31	2'30	...	2'46				
2nd-half	7,0	21,2	72,3	2,927,5	88,9	3,116,9	89	1,03	95	23,35	8	26,30	1,23	28,79	14'03	6'40	3'27	2'31	...	2'47				
(a) to (d)	Bombay, Baroda and Central India.	5' 6" gauge.	1899	78,1	606,1	383,3	10,634,0	5,294,5	16,908,0	1,41	4,55	6,61	27,59	3,06	43,24	4,68	49,98	9'71	4'65	2'99	2'30	...	2'64	
			1900	76,9	595,5	404,4	11,487,8	5,285,2	17,849,0	1,36	4,38	6,77	32,65	3,14	48,30	5,31	55,62	9'66	4'20	2'99	2'32	...	2'60	
			1901	71,4	550,1	440,8	11,713,8	5,387,9	18,143,8	1,46	4,66	7,24	34,69	3,23	51,18	5,47	58,66	10'07	5'58	2'99	2'47	...	2'61	
			1902	69,2	558,0	378,1	12,018,3	5,821,5	18,893,8	1,57	4,54	7,10	35,26	3,38	51,95	5,50	59,59	11'25	6'08	2'99	2'47	1'41	...	2'60
			1903	67,8	563,0	377,6	12,277,8	5,368,1	19,651,2	1,63	4,65	7,09	37,45	3,73	54,55	5,94	62,86	11'46	6'08	2'99	2'48	1'40	...	2'68
			Average ...	72,7	573,9	392,8	11,636,5	5,613,4	18,289,4	1,48	4,54	6,96	33,53	3,31	49,82	5,38	57,40	10'61	6'16	2'99	2'41	1'42	...	2'61
			1903 { 1st-half	39,5	307,0	195,7	6,355,7	3,458,3	10,355,2	67	2,34	3,55	18,94	3,13	27,83	3,09	32,15	10'26	5'61	2'99	2'24	...	2'52	
			2nd-half	29,4	256,0	181,9	5,821,9	2,904,9	9,299,0	78	2,31	3,91	19,51	1,60	26,72	2,85	30,71	10'41	5'03	2'99	2'30	...	2'58	
			1899	37,6	132,0	94,7	9,929,0	847,4	11,902,7	1,06	1,18	3,00	20,55	1,10	26,89	3,22	30,30	12'89	6'25	3'01	2'50	3'74	...	2'70
			1900	45,0	128,5	90,2	10,917,8	863,8	12,965,9	1,07	1,19	3,54	20,96	1,05	27,03	3,60	30,81	13'61	6'59	3'08	2'50	3'73	...	2'65
1901	42,4	128,8	89,1	10,891,0	1,219,9	13,271,6	1,00	1,26	3,10	21,21	1,69	28,16	2,38	32,04	13'65	6'48	2'99	2'44	1'62	...	2'64			
1902	39,7	117,1	1,050,3	11,201,9	1,234,8	13,643,8	1,12	1,34	3,29	21,90	1,65	29,20	2,52	33,22	13'94	6'54	3'04	2'51	2'49	...	2'60			
1903	43,4	117,9	1,127,2	11,767,8	1,285,1	14,331,3	1,24	1,38	3,63	23,63	1,67	30,55	3,06	35,86	14'05	6'31	2'99	2'51	2'51	...	2'60			
Average ...	43,6	124,0	1,019,7	10,945,5	1,090,2	13,223,0	1,10	1,27	3,17	21,43	1,40	28,37	3,00	32,35	13'67	6'43	3'04	2'49	2'60	...	2'67			
1903 { 1st-half	31,2	50,7	553,6	5,803,1	659,5	7,167,1	70	74	1,79	12,06	89	16,17	1,21	18,08	14'41	6'22	2'95	2'49	...	2'72				
2nd-half	22,2	59,1	673,6	5,894,7	625,6	7,174,2	54	64	1,84	10,57	79	14,38	1,87	17,32	13'63	6'44	2'96	2'49	...	2'71				
(a) to (d)	East Indian	5' 6" gauge.	1899	66,0	186,9	1,314,9	17,367,6	1,221,1	20,156,5	6,86	8,56	13,10	1,42,73	1,29	1,72,54	10,47	1,96,95	15'03	6'70	3'33	2'51	...	2'73	
			1900	64,8	185,8	1,431,9	18,737,5	1,307,8	21,727,9	6,75	8,59	14,29	1,53,63	1,39	1,84,09	12,08	2,16,38	15'16	6'54	3'28	2'51	...	2'72	
			1901	64,2	197,5	1,530,9	20,827,4	1,416,2	23,875,1	6,40	8,77	15,37	1,64,82	1,55	1,90,91	10,98	2,23,26	14'09	6'16	3'31	2'46	1'62	...	2'64
			1902	73,0	215,1	1,620,8	19,781,1	1,563,1	23,255,5	7,96	9,24	16,08	1,64,40	1,69	1,89,27	11,69	2,19,34	14'71	6'04	3'13	2'46	1'70	...	2'67
			1903	78,8	210,2	1,703,9	20,635,4	1,654,3	24,282,3	8,16	9,06	17,15	1,60,95	1,63	1,90,97	11,27	2,20,29	14'95	6'24	3'30	2'46	1'61	...	2'67
			Average ...	69,4	199,1	1,522,1	19,430,4	1,439,5	22,659,5	7,23	8,91	15,19	1,65,31	1,49	1,89,13	11,29	2,18,04	15'03	6'35	3'27	2'48	1'77	...	2'69
			1903 { 1st-half	43,8	105,4	878,4	10,700,7	602,5	12,539,9	4,64	4,64	8,61	81,87	78	1,00,54	5,35	1,17,89	14'71	5'69	3'24	2'44	...	2'67	
			2nd-half	35,0	104,8	826,2	9,929,7	661,6	11,761,5	3,62	4,44	8,84	79,98	85	90,43	5,92	1,11,40	15'14	6'84	3'28	2'44	...	2'68	
			1899	72,8	366,7	364,4	10,520,3	4,820,3	16,144,5	5,61	8,14	6,52	41,71	1,71	63,59	10,31	82,11	10'95	4'14	3'00	1'91	...	2'34	
			1900	67,9	325,0	465,3	11,715,2	5,117,5	17,690,9	5,27	7,43	7,73	45,31	1,85	67,61	11,33	68,02	10'98	4'14	3'00	1'91	...	2'31	
1901	69,7	384,8	553,3	13,819,6	5,278,0	20,109,4	5,28	8,71	8,78	56,87	1,84	81,42	10,05	1,00,91	10'04	4'30	3'00	2'00	0'95	...	2'37			
1902	71,3	433,2	683,0	12,472,0	4,808,8	18,349,0	6,19	10,35	9,77	57,13	2,08	85,52	11,78	1,09,18	10'95	3'74	3'00	2'09	1'12	...	2'39			
1903	84,6	431,4	789,0	14,361,4	4,674,4	20,220,8	6,46	9,95	10,48	68,66	2,21	87,78	12,55	1,12,32	11'32	4'20	3'00	2'11	...	2'43				
Average ...	73,3	369,0	543,0	12,577,7	4,919,9	19,502,9	5,78	8,92	8,66	51,04	1,94	77,18	11,32	98,50	11'02	4'10	3'00	2'00	1'09	...	2'35			
1903 { 1st-half	41,9	229,1	364,4	7,272,2	2,448,5	10,374,4	3,27	5,16	5,09	29,01	1,23	43,75	6,12	58,58	11'12	3'99	2'99	2'16	...	2'53				
2nd-half	42,7	202,3	394,6	7,069,2	2,127,1	9,816,4	3,19	4,79	5,40	29,65	88	44,01	6,43	55,74	11'30	4'37	3'00	2'14	...	2'50				

\* Entire system, as the separate information for different gauges is not available

Appendix 15.  
Coaching traffic.

DIX 15.  
and portion of 44 in Report for 1902.]  
traffic.  
paragraphs 17 and 19 of Report.)

Year.	AVERAGE DISTANCE TRAVELLED IN MILES.							AVERAGE NUMBER OF PASSENGERS IN A COACHING TRAIN.					PERCENTAGE OF FREIGHT OF CAPACITY HAULED.				AVERAGE NUMBER OF VEHICLES IN A COACHING TRAIN.					Average weight of freight in a coaching train in tons.	Average dead weight in a coaching train in tons.	Total average weight in a coaching train in tons.	Year.
	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	Total.				
1899	1.60	38.78	29.03	34.17	22.43	22.05	0.47	3.07	7.48	144.43	155.45	2.03	11.39	11.12	29.02	0.90	1.19	1.24	7.91	14.53	10.64	200.54	211.19	1899.	
1900	1.08	43.21	22.87	32.23	22.41	23.70	0.45	2.70	8.99	173.49	181.63	2.44	9.55	11.71	37.37	1.07	1.29	1.40	9.31	16.31	12.48	212.56	225.05	1900.	
1901	2.06	44.27	30.35	37.90	24.70	23.35	0.41	2.07	12.10	310.03	224.61	2.19	10.17	12.70	41.85	1.06	1.39	1.74	9.21	17.16	15.09	239.2	254.91	1901.	
1902	1.95	45.03	30.44	38.13	24.82	23.19	0.48	2.74	12.02	201.62	216.76	2.94	10.88	14.62	42.47	0.83	1.20	1.57	8.55	15.82	14.40	225.45	239.85	1902.	
1903	1.45	38.01	29.12	35.60	24.43	22.53	0.38	2.09	9.41	147.40	159.36	2.72	9.37	13.97	38.80	0.77	1.05	1.22	6.09	12.33	10.63	198.04	205.67	1903.	
1903	1.77	41.67	28.38	35.63	23.79	22.96	0.44	2.63	10.00	175.19	188.16	2.60	10.27	12.82	37.81	0.94	1.22	1.42	8.05	15.23	12.43	214.68	227.33	Average.	
1903	1.31	†	†	†	†	†	0.33	1.97	8.02	142.85	153.17	2.20	8.74	12.12	36.28	0.81	1.01	1.20	6.70	12.63	10.19	194.00	204.19	1st half } 1903.	
1903	1.59	†	†	†	†	†	0.43	1.21	10.89	152.40	166.02	3.16	10.07	15.89	30.06	0.71	1.06	1.25	7.03	13.05	11.11	195.41	206.52	2nd half } 1903.	
1899	1.00	112.13	79.51	52.87	60.72	60.88	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	1899.	
1900	0.46	187.42	77.65	64.82	71.98	72.02	1.07	2.28	3.69	278.02	282.04	6.30	7.14	10.79	45.64	1.57	1.77	0.89	12.27	19.56	18.93	246.50	265.43	1900.	
1901	1.56	135.19	140.78	67.49	71.84	71.84	0.67	3.09	6.40	233.33	242.89	5.12	13.03	17.21	39.52	1.35	1.44	1.02	11.01	18.08	15.98	245.91	261.89	1901.	
1902	1.30	156.83	146.20	73.83	68.88	68.88	1.09	2.94	5.85	211.45	221.33	6.69	12.15	15.50	34.26	1.33	1.36	1.02	11.48	18.44	14.63	255.71	270.35	1902.	
1903	1.33	171.32	148.64	76.36	65.72	65.19	1.25	2.98	5.84	201.81	211.83	8.01	14.44	15.17	37.20	1.33	1.28	1.10	9.92	16.60	13.67	243.74	257.61	1903.	
1903	1.15	152.68	118.54	67.03	67.43	67.13	1.04	2.75	4.99	225.82	234.59	6.19	11.03	13.26	38.75	1.37	1.49	1.02	11.24	18.19	15.52	251.03	266.55	Average.	
1903	1.35	†	†	†	†	†	1.31	2.83	5.86	204.02	214.02	7.07	13.33	15.40	35.42	1.33	1.28	1.03	10.47	17.04	14.05	247.61	261.86	1st half } 1903.	
1903	1.31	†	†	†	†	†	1.19	3.13	5.82	199.61	209.75	6.95	13.54	14.87	39.23	1.34	1.30	1.17	9.38	16.26	13.70	239.66	253.66	2nd half } 1903.	
1899	1.31	20.39	14.60	110.61	16.68	16.69	2.13	14.44	23.24	169.45	213.27	8.00	16.24	44.15	41.55	1.18	2.03	0.96	7.12	14.38	16.04	222.86	238.90	1899.	
1900	1.17	20.66	14.63	107.50	18.22	18.97	1.94	13.14	27.31	187.25	239.65	7.59	15.10	44.47	41.25	1.14	1.98	1.01	8.04	15.30	16.97	232.05	249.02	1900.	
1901	1.30	35.65	28.51	110.68	23.99	20.79	1.95	12.68	27.55	185.88	237.74	7.98	14.94	43.27	41.36	1.07	1.93	1.13	7.95	15.17	16.86	232.95	249.81	1901.	
1902	1.08	34.64	27.02	120.51	22.63	20.25	1.97	12.07	29.53	184.61	225.08	8.08	14.34	41.12	41.67	1.04	1.95	1.22	7.88	15.35	16.98	237.48	254.46	1902.	
1903	1.03	40.05	27.94	120.53	23.63	20.61	1.89	11.97	23.13	183.93	220.82	8.30	14.07	45.83	41.62	0.95	1.90	1.03	7.90	15.30	16.63	237.77	254.40	1903.	
1903	1.16	31.06	22.69	113.66	20.84	20.07	1.98	12.66	20.55	181.94	223.33	7.97	14.94	43.77	41.63	1.03	1.99	1.07	7.78	15.10	16.70	232.62	249.32	Average.	
1903	1.10	†	†	†	†	†	2.03	13.18	23.63	193.20	232.09	9.25	15.34	45.00	42.90	0.98	1.89	1.03	8.09	15.48	17.99	230.34	256.73	1st half } 1903.	
1903	0.83	†	†	†	†	†	1.71	10.79	22.64	178.02	210.16	7.40	12.67	40.70	40.73	0.93	2.00	1.02	7.72	15.13	15.90	236.28	252.19	2nd half } 1903.	
1899	1.43	50.61	47.92	20.07	20.85	28.76	1.68	3.80	18.72	157.70	181.58	6.01	10.64	16.11	39.00	1.27	1.24	2.21	7.09	14.50	12.30	213.95	235.28	1899.	
1900	1.43	51.63	47.33	28.22	30.15	23.85	1.60	3.25	17.07	157.07	178.90	5.97	10.50	14.42	36.28	1.24	1.18	2.26	7.42	14.99	12.23	219.31	231.55	1900.	
1901	1.41	52.00	53.13	31.59	31.22	10.36	1.33	3.44	18.47	180.16	192.52	5.61	11.89	15.59	38.67	1.13	1.12	2.23	7.53	14.88	13.05	219.30	232.41	1901.	
1902	1.55	61.05	56.88	31.03	30.80	10.04	1.48	3.57	18.37	182.76	157.18	6.18	12.75	16.13	38.61	1.14	1.09	2.21	7.27	14.61	12.74	231.60	234.54	1902.	
1903	1.36	61.88	63.84	33.16	31.35	10.29	1.57	3.75	20.95	161.87	168.14	6.66	14.40	20.17	38.24	1.05	1.08	2.14	7.35	16.19	13.03	233.30	236.58	1903.	
1903	1.42	55.43	53.62	30.61	30.71	9.83	1.51	3.50	18.82	161.73	185.66	6.07	12.04	16.47	38.00	1.17	1.13	2.21	7.33	14.63	12.63	219.35	232.03	Average.	
1903	1.12	†	†	†	†	†	1.76	4.13	21.10	176.05	203.05	7.20	13.90	19.46	40.44	1.10	1.09	2.15	7.56	14.56	13.69	224.39	238.07	1st half } 1903.	
1903	1.63	†	†	†	†	†	1.39	3.38	20.22	142.24	173.83	6.03	13.83	20.91	36.01	1.01	0.96	2.13	7.16	13.84	12.50	232.27	234.77	2nd half } 1903.	
1899	0.75	120.23	111.14	52.28	56.75	60.01	1.54	4.48	13.98	300.83	220.81	6.63	13.15	10.19	34.53	1.59	1.51	1.40	10.03	17.80	16.29	236.69	232.95	1899.	
1900	0.98	121.44	123.14	53.39	59.80	60.07	1.44	4.39	14.20	193.35	218.39	6.73	14.51	11.80	30.76	1.44	1.37	1.29	9.43	16.78	16.53	236.52	243.10	1900.	
1901	0.78	130.27	139.40	57.87	63.45	59.97	1.35	4.43	14.69	207.93	228.40	6.29	13.99	21.87	37.16	1.42	1.43	1.33	9.82	16.99	17.11	243.16	260.27	1901.	
1902	1.85	143.34	136.37	67.01	61.20	11.52	1.62	4.61	14.86	189.81	210.91	7.38	14.06	20.35	34.60	1.55	1.47	1.51	9.24	17.05	15.64	254.62	270.46	1902.	
1903	1.88	133.09	133.85	58.68	61.17	10.43	1.57	4.20	15.25	189.62	210.24	6.89	12.90	22.63	38.04	1.60	1.44	1.47	8.85	13.36	16.04	272.91	288.95	1903.	
1903	1.91	120.47	128.17	55.62	60.27	11.09	1.50	4.42	14.59	197.31	217.83	6.78	13.72	21.17	35.98	1.53	1.46	1.40	9.41	16.33	16.37	246.73	253.15	Average.	
1903	1.89	†	†	†	†	†	1.78	4.61	15.20	190.24	211.83	7.65	14.20	22.05	37.03	1.62	1.43	1.45	8.77	16.58	16.32	271.33	287.65	1st half } 1903.	
1903	1.86	†	†	†	†	†	1.35	3.78	15.30	183.99	200.42	6.06	11.60	23.25	38.24	1.53	1.44	1.50	8.39	16.67	15.74	274.64	290.28	2nd half } 1903.	
1899	0.43	87.18	61.55	114.02	29.32	32.36	2.34	0.80	10.05	103.60	125.75	10.40	17.13	23.61	47.19	1.56	2.04	0.99	5.13	12.72	10.23	298.46	218.74	1899.	
1900	0.68	86.13	38.62	100.37	28.93	31.72	2.24	0.91	11.92	112.04	135.11	10.12	14.49	20.03	40.41	1.57	2.05	0.89	5.54	13.53	11.05	218.90	239.05	1900.	
1901	0.90	131.51	09.92	101.64	39.57	34.23	2.08	0.88	14.90	128.55	154.41	9.07	16.38	27.61	43.17	1.60	2.03	0.99	6.01	13.97	11.93	227.16	230.08	1901.	
1902	0.98	132.24	122.79	111.04	42.12	37.47	2.81	10.77	14.60	113.12	140.80	11.43	22.82</												

Appendix 15.  
Coaching traffic.

APPEN  
[Appendices 14, 15, 31  
Coaching  
(Referred to in para

NUMBER.	Main head.	Sub-head.	Railway including branches worked.	Year.	NUMBER CARRIED IN HUNDREDS.							EARNINGS IN THOUSANDS.							AVERAGE RATE CHARGED PER MILE IN PIES.									
					1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total passenger earnings.	Parcel earnings.	Total earnings from coaching traffic.	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.				
6	(b) to (f).	5' 6" gauge - contd.	Indian Midland	1899	11.9	43.1	319.1	1,650.5	6	2,034.3	1.30	1.72	4.65	14.04	...	21.11	2.27	26.38	10'80	4'53	3'00	2'25	...	2'38				
				1900	11.2	37.3	292.4	1,584.8	1.0	2,226.7	1.18	1.55	3.77	15.06	...	21.56	2.25	26.73	10'58	5'23	2'97	2'55	...	2'35				
				1901	13.2	43.5	312.3	1,160.0	6	2,528.6	1.26	1.91	4.05	17.32	...	25.04	1.79	29.79	11'35	6'31	2'07	2'55	10'75	2'35				
				1902	13.7	51.5	271.1	2,212.2	2	2,548.7	1.75	3.28	4.14	18.53	...	26.70	1.94	33.44	10'08	4'43	2'95	2'55	12'00	2'37				
				1903	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	11'11	4'30	3'99	2'55	...	2'34		
				Average ...	12.3	43.9	298.7	1,070.1	6	2,334.5	1.45	1.93	3.94	17.16	...	24.33	2.10	29.98	10'96	4'78	2'98	2'49	11'37	2'38				
				1903 { 1st half	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
				1903 { 2nd half	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
				1899	24.1	102.4	...	7,600.1	505.1	8,291.7	1.99	2.80	...	25.14	22	30.14	3.01	36.15	10'70	4'73	...	2'11	...	...	...	2'38		
				1900	22.4	85.4	...	6,454.3	519.4	6,991.5	1.98	2.77	...	30.25	27	35.27	3.43	41.72	11'32	4'71	...	2'11	...	...	...	2'32		
1901	28.8	111.2	19.2	11,507.3	610.9	12,277.4	2.53	3.44	42	47.17	26	53.83	3.98	61.65	13'04	6'27	4'50	2'55	0'55	...	2'42							
1902	30.3	120.3	20.9	12,144.7	658.9	13,005.1	2.94	3.71	45	50.63	30	57.49	4.41	68.04	13'04	6'00	4'52	2'26	0'55	...	2'43							
1903	30.4	131.1	36.1	12,787.5	726.3	13,711.4	2.84	3.99	67	82.66	31	60.46	4.36	69.27	13'01	6'24	4'49	2'27	0'52	...	2'43							
7	(a) to (c).	Madras	Nizam's Guaranteed State.	Average ...	27.2	112.1	25.4	10,610.8	610.1	11,275.4	2.45	3.34	52	41.06	27	47.44	3.61	54.97	12'24	5'59	4'50	2'20	0'54	2'39				
				1903 { 1st half	16.0	64.0	19.9	6,597.8	340.4	6,948.1	1.54	2.04	36	27.07	11	31.12	2.15	35.70	12'16	5'15	4'50	2'28	+	2'46				
				1903 { 2nd half	14.4	67.1	16.3	6,279.7	385.0	6,763.3	1.30	1.94	31	25.59	20	29.34	2.31	33.57	12'73	4'37	4'48	2'23	+	2'40				
				1899	7.0	36.3	255.7	913.8	18.0	1,230.8	52	78	1.17	4.96	14	7.53	50	8.85	15'24	4'69	2'50	2'00	...	2'38				
				1900	6.5	34.2	246.2	1,011.4	14.0	1,312.3	46	69	1.14	5.34	20	7.83	60	9.25	15'13	4'96	2'50	2'00	...	2'34				
				1901	6.1	37.9	271.2	1,081.6	12.9	1,408.8	40	74	1.25	5.54	13	6.66	66	9.35	14'49	4'44	2'50	2'00	6'70	2'32				
				1902	6.8	40.6	271.7	1,421.4	9.8	1,750.3	47	78	1.31	5.51	10	6.17	68	9.62	14'39	4'57	2'50	1'98	...	2'31				
				1903	6.3	40.5	286.5	1,473.7	10.4	1,737.4	48	80	1.23	5.43	10	8.02	64	9.36	14'27	3'97	2'50	2'00	2'24	2'31				
				Average ...	6.5	37.9	232.3	1,160.4	12.8	1,499.0	46	75	1.22	5.36	13	7.93	62	9.29	14'70	4'53	2'50	2'00	3'34	2'33				
				1903 { 1st half	3.6	21.4	137.5	792.5	5.7	950.7	28	42	64	2.74	0	4.34	38	5.14	14'70	4'25	2'50	1'98	+	2'31				
1903 { 2nd half	2.7	19.1	120.0	691.2	4.7	846.7	18	38	59	2.40	4	3.65	28	4.22	14'31	4'51	2'50	1'98	+	2'29								
8	(a) & (b).	North Western State.	Commercial section.	1899	...	...	...	...	...	...	...	...	...	...	89.45	5.98	1,12,78	+	+	+	+	+	+					
				1900	...	...	...	...	...	...	...	...	...	...	...	...	1,00.24	6.75	1,20,77	+	+	+	+	+				
				1901	...	...	...	...	...	...	...	...	...	...	...	...	1,16.55	7.46	1,32,79	+	+	+	+	+				
				1902	...	...	...	...	...	...	...	...	...	...	...	...	1,23.10	7.50	1,39,87	+	+	+	+	+				
				1903	...	...	...	...	...	...	...	...	...	...	...	...	1,34.50	9.95	1,57,35	+	+	+	+	+				
				Average ...	+	+	+	+	+	+	+	+	+	+	+	+	1,15.00	7.53	1,32,70	+	+	+	+	+				
				1903 { 1st half	...	...	...	...	...	...	...	...	...	...	...	...	...	69.84	3.52	90.44	10'89	4'57	3'00	2'26	...	2'40		
				1903 { 2nd half	...	...	...	...	...	...	...	...	...	...	...	...	...	64.72	6.43	76.91	11'17	4'72	3'01	2'59	...	2'42		
				1899	...	...	...	...	...	...	...	...	...	...	...	...	...	11.40	87	13.11	+	+	+	+	+			
				1900	...	...	...	...	...	...	...	...	...	...	...	...	...	11.87	1.03	13.93	+	+	+	+	+			
1901	...	...	...	...	...	...	...	...	...	...	...	...	...	13.34	1.19	16.00	+	+	+	+	+							
1902	...	...	...	...	...	...	...	...	...	...	...	...	...	14.54	1.00	17.01	+	+	+	+	+							
1903	...	...	...	...	...	...	...	...	...	...	...	...	...	15.09	1.12	17.30	+	+	+	+	+							
9	(a) to (d).	North Western State.	Military section.	Average ...	+	+	+	+	+	+	+	+	+	+	13.25	1.04	15.26	+	+	+	+	+						
				1903 { 1st half	...	...	...	...	...	...	...	...	...	...	...	...	...	7.43	30	8.37	+	+	+	+				
				1903 { 2nd half	...	...	...	...	...	...	...	...	...	...	...	...	...	7.60	76	8.93	+	+	+	+				
				1899	52.0	173.0	744.5	10,280.3	...	17,257.0	3.77	4.78	8.04	94.20	...	1,10.85	6.85	1,25.90	10'89	4'61	3'01	2'26	...	2'42				
				1900	48.2	170.5	916.6	17,054.4	...	16,189.7	3.64	4.57	9.39	1,00.61	...	1,18.11	7.79	1,34.70	10'72	4'84	3'01	2'26	...	2'41				
				1901	53.6	188.8	1,325.8	18,722.4	...	20,293.6	3.94	5.21	11.64	1,09.85	...	1,30.04	8.66	1,48.70	10'37	4'41	3'01	2'27	...	2'42				
				1902	57.0	201.4	1,307.5	19,253.1	...	20,822.0	4.21	5.92	11.90	1,14.42	...	1,36.05	8.60	1,56.91	10'81	4'33	3'02	2'27	...	2'43				
				1903	67.0	217.4	1,816.4	21,176.8	...	22,777.0	4.86	6.05	12.79	1,26.35	...	1,46.05	11.07	1,74.65	11'10	4'70	3'02	2'27	...	2'43				
				Average ...	55.7	190.9	1,122.8	13,408.6	...	10,608.0	4.06	5.17	10.77	1,09.00	...	1,29.00	8.57	1,48.10	10'70	4'59	3'01	2'27	...	2'42				
				1903 { 1st half	34.7	112.0	690.6	10,210.2	...	11,044.4	2.58	2.85	6.40	65.85	...	77.27	3.98	88.91	+	+	+	+	...	+				
1903 { 2nd half	32.3	104.5	635.8	10,998.6	...	11,733.2	2.28	2.80	0.30	81.00	...	72.38	7.19	85.81	+	+	+	+	...	+								

DIX 15—contd.  
 and portion of 44 in Report for 1902.]  
 traffic.  
 Graphs 17 and 19 of Report.)

Appendix 15.  
 Coaching traffic.

Year	AVERAGE DISTANCE TRAVELLED IN MILES.						AVERAGE NUMBER OF PASSENGERS IN A COACHING TRAIN.					PERCENTAGE OF FREIGHT ON CAPACITY HAULED.				AVERAGE NUMBER OF VEHICLES IN A COACHING TRAIN.					Average weight of freight in a coaching train in tons.	Average dead weight in a coaching train in tons.	Total average weight in a coaching train in tons.	Year.	
	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.					Total.
1899	122	166.08	158.46	82.03	100.14	...	69.42	2.37	6.95	...	135.95	145.28	7.94	16.67	30.66	30.02	2.01	1.98	...	7.85	16.38	11.64	232.81	244.46	1899.
1900	124	175.05	150.62	83.37	61.28	...	66.51	1.90	5.16	...	122.39	129.44	6.55	12.30	30.51	29.84	1.92	1.96	...	7.37	14.13	10.32	226.63	236.85	1900.
1901	125	175.18	158.85	83.78	63.41	7.44	68.29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1901.
1902	126	229.88	191.82	99.18	64.87	13.33	72.07	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1902.
1903	127	202.87	207.57	113.35	63.00	...	70.01	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1903.
Average.	123	163.98	173.08	93.33	70.48	10.38	69.26	2.13	6.05	...	129.17	137.30	7.24	14.53	30.58	29.93	1.96	1.97	...	7.56	14.75	10.98	229.67	240.65	Average.
1st half	119	127	136.38	83.25	...	28.24	29.54	1.88	9.40	...	185.94	198.22	17.35	27.18	...	42.67	1.43	1.76	...	8.53	19.28	14.71	180.24	194.95	1899.
2nd half	121	121	141.60	88.04	...	30.97	32.10	2.59	8.85	...	210.04	221.49	16.44	29.35	...	45.27	1.33	1.67	...	8.93	13.28	16.52	181.42	197.94	1900.
1899	095	147	129.43	94.63	93.31	34.88	14.82	1.90	6.63	0.85	192.94	202.31	12.07	24.59	5.95	44.08	1.27	1.43	0.33	8.24	12.65	14.20	184.02	198.22	1901.
1900	121	123	142.88	93.73	97.33	34.08	14.94	3.28	7.60	0.88	211.03	231.89	18.98	31.65	11.96	40.63	1.31	1.50	0.26	8.01	15.44	15.88	224.74	240.59	1902.
1901	122	114	137.09	93.29	78.60	34.88	15.75	2.16	8.10	1.41	221.86	233.53	17.33	30.44	16.71	40.90	1.37	1.56	0.26	8.4	15.93	16.46	230.06	246.52	1903.
Average.	115	124	137.59	92.81	90.10	32.81	15.17	2.38	8.11	1.08	204.38	215.49	16.43	28.64	11.54	42.71	1.35	1.56	0.28	8.63	14.09	15.55	200.10	215.65	Average.
1st half	116	131	141	93	97	31	32	2.44	7.74	1.56	230.99	241.63	19.08	26.69	18.03	42.30	1.41	1.58	0.27	9.44	16.07	17.15	231.42	245.57	1st half } 1903.
2nd half	144	0.86	141	93	97	31	32	1.89	8.45	1.20	213.92	225.82	15.54	32.17	15.37	39.56	1.33	1.54	0.26	9.44	15.79	16.80	228.74	244.54	2nd half } 1903.
1899	083	1.56	89.70	87.05	35.12	51.09	...	3.17	15.51	...	253.94	273.63	9.56	34.33	...	34.87	2.59	2.65	...	12.10	21.63	19.89	281.41	301.30	1899.
1900	087	1.47	93.31	77.83	36.65	60.70	49.91	2.36	13.01	...	228.72	243.09	7.37	28.43	...	37.14	2.60	2.49	...	10.50	19.47	17.68	284.43	292.10	1900.
1901	078	1.54	83.03	84.93	36.45	49.30	31.35	1.16	6.93	...	119.12	126.31	6.48	28.75	...	35.91	1.57	1.22	...	6.62	10.19	8.93	191.22	200.15	1901.
1902	095	1.38	82.48	80.40	38.00	37.51	78.08	2.49	12.80	...	214.56	229.85	7.74	24.81	...	34.40	1.13	1.03	...	5.12	9.31	7.97	127.78	135.75	1902.
1903	104	1.25	97.72	85.63	35.44	35.23	79.11	2.21	13.43	...	221.63	237.57	6.33	24.26	...	33.89	1.08	1.18	...	5.20	9.51	7.90	132.63	140.53	1903.
Average.	090	1.41	90.05	85.35	35.71	44.72	62.85	2.28	13.22	...	207.37	221.87	7.50	28.47	...	35.24	1.77	1.71	...	7.71	14.02	12.47	199.49	211.96	Average.
1st half	101	1.30	141	93	97	31	32	2.67	16.51	...	344.28	263.44	7.55	27.47	...	35.27	1.06	1.17	...	5.41	9.75	8.64	131.40	140.04	1st half } 1903.
2nd half	111	1.18	141	93	97	31	32	1.77	12.22	...	199.92	213.81	5.17	31.24	...	32.41	1.15	1.23	...	5.30	9.65	7.14	133.88	141.02	2nd half } 1903.
1899	1.43	4.01	12.82	190.63	210.00	8.27	17.95	26.90	39.96	1.43	1.43	1.41	9.13	17.16	14.93	240.40	255.33	1899.							
1900	1.46	4.15	13.99	190.68	210.29	7.71	14.72	29.65	41.11	1.39	1.37	1.43	8.62	16.43	15.04	231.73	246.75	1900.							
1901	1.39	4.60	15.44	181.04	203.47	7.33	17.70	31.16	39.51	1.38	1.34	1.47	8.98	16.15	14.24	229.29	243.53	1901.							
1902	1.31	4.48	14.08	170.34	170.21	7.28	18.42	28.90	37.00	1.07	1.22	1.44	8.80	15.58	13.63	224.35	237.87	1902.							
1903	1.29	3.61	13.15	165.83	183.68	7.99	16.56	28.18	37.68	1.11	1.11	1.37	8.33	11.92	13.35	215.38	228.70	1903.							
Average.	1.41	4.35	13.00	179.66	195.33	7.72	17.00	28.94	36.65	1.28	1.29	1.42	8.81	15.45	14.22	228.23	242.45	Average.							
1st half	106	1.43	143	93	97	31	32	1.51	4.07	14.44	185.03	203.05	8.71	17.70	29.63	40.53	1.20	1.17	1.43	8.69	15.27	14.48	222.09	236.57	1st half } 1903.
2nd half	102	1.40	140	93	97	31	32	1.10	3.22	12.04	148.11	104.47	7.28	15.47	26.32	35.01	1.02	1.06	1.32	8.02	14.02	12.37	209.54	221.91	2nd half } 1903.
1899	1.05	2.99	6.04	163.24	173.33	6.15	13.39	16.03	30.68	0.98	0.96	0.95	9.75	15.80	12.69	239.43	243.12	1899.							
1900	1.16	2.55	6.06	159.10	169.87	5.58	11.61	17.89	30.80	0.97	0.93	0.83	9.63	15.61	12.78	236.54	239.31	1900.							
1901	1.07	2.50	5.71	140.07	158.44	5.81	13.38	16.03	31.04	0.90	0.93	0.94	9.10	14.66	12.10	216.10	245.20	1901.							
1902	0.93	2.78	6.14	128.86	138.71	5.44	15.07	16.05	30.59	0.85	0.85	1.05	8.20	13.72	10.66	206.42	216.98	1902.							
1903	0.97	2.13	5.05	109.02	117.67	5.96	13.89	15.68	28.33	0.78	0.74	0.90	7.95	10.37	8.60	182.88	191.36	1903.							
Average.	1.02	2.61	5.80	141.98	151.40	5.61	13.47	16.33	30.45	0.89	0.88	0.94	8.93	14.03	11.32	212.27	223.59	Average.							
1st half	119	1.23	116	112	106	38	44	1.55	4.62	12.01	187.42	205.07	7.89	17.53	25.74	36.10	1.33	1.37	1.36	9.20	17.00	14.66	239.11	253.77	1st half } 1903.
2nd half	130	1.11	135.33	106.43	65.32	50.06	...	1.43	3.98	13.05	186.80	205.31	7.42	15.31	28.59	39.88	1.34	1.32	1.36	8.94	16.33	14.77	231.10	245.97	2nd half } 1903.
1899	1.18	1.24	132.08	120.09	55.87	40.50	...	1.35	4.86	14.27	177.19	197.17	7.17	17.38	29.80	37.08	1.32	1.28	1.41	9.00	15.97	13.99	227.70	241.68	1899.
1900	1.04	1.31	131.21	121.90	58.33	50.44	...	1.27	4.23	12.01	164.44	182.84	7.09	18.10	27.56	36.84	1.21	1.16	1.37	8.73	15.71	13.07	220.88	233.4	1900.
1901	1.08	1.16	124.79	106.18	61.84	50.55	...	1.23	3.40	11.98	167.60	174.11	7.73	16.27	23.87	36.43	1.06	1.00	1.30	8.28	11.70	12.64	210.64	223.29	1901.
Average.	1.23	1.16	128.02	112.20	61.24	48.03	...	1.37	4.12	12.84	174.68	193.02	7.46	16.92	27.71	37.60	1.26	1.24	1.36	8.63	15.26	13.82	225.79	239.61	Average.
1st half	119	1.23	116	112	106	38	44	1.55	4.62	12.01	187.42	205.07	7.89	17.53	25.74	36.10	1.33	1.37	1.36	9.20	17.00	14.66	239.11	253.77	1st half } 1903.
2nd half	130	1.11	135.33	106.43	65.32	50.06	...	1.43	3.98	13.05	186.80	205.31	7.42	15.31	28.59	39.88	1.34	1.32	1.36	8.94	16.33	14.77	231.10	245.97	2nd half } 1903.

\* Included with the Great Indian Peninsula railway.  
 † Information not available.

Appendix 15.  
Coaching traffic.

APPENDIX  
[Appendices 14, 15, &  
Coaching  
(Referred to:

Main head.	Sub-head.	Railway including branches worked.	Year.	NUMBER CARRIED IN HUNDREDS.					EARNINGS IN THOUSANDS.							AVERAGE RATE CHARGED PER MILE IN PIES.							
				1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total passenger earnings.	Parcel earnings.	Total earnings from coaching traffic.	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.
10	(a) to (c).	5' 6" gauge—conclid.	1899	22.0	66.8	347.0	5,354.9	...	6,392.7	1.22	1.68	2.67	33.93	...	38.48	1.50	42.58	11.37	5.36	3.34	2.50	...	2.8
			1900	20.1	91.4	392.0	6,493.4	...	6,994.9	1.63	2.18	3.10	36.04	...	43.94	1.85	48.08	11.52	5.31	3.37	2.51	...	2.7
			1901	28.9	105.2	507.7	8,123.6	...	8,764.4	1.55	2.43	3.03	43.89	...	51.49	2.16	57.35	11.45	5.24	3.05	2.47	...	2.6
			1902	33.5	114.3	605.9	7,579.8	...	8,332.4	1.83	2.82	4.34	41.48	...	50.45	2.26	57.25	11.50	5.07	3.03	2.48	...	2.8
			1903	34.6	116.2	804.7	7,946.4	...	8,901.9	2.07	2.52	5.66	43.88	...	54.43	2.25	61.31	11.81	5.23	3.03	2.44	...	2.8
			Average ...	29.4	99.2	531.5	7,317.2	...	7,877.3	1.64	2.38	3.88	39.04	...	47.54	1.99	53.31	11.53	5.24	3.16	2.47	...	2.6
			1903 { 1st half	18.7	60.3	381.5	4,030.1	...	4,400.5	1.13	1.48	2.74	23.22	...	28.57	1.13	32.32	11.78	5.10	3.03	2.48	...	2.6
			1903 { 2nd half	15.9	58.0	423.2	3,916.3	...	4,411.4	94	1.34	2.92	20.66	...	25.86	1.12	28.99	11.88	5.35	2.98	2.41	...	2.6
			1899	6.8	22.7	10.0	3,652.5	73.8	3,765.8	53	64	19	18.57	...	19.92	33	21.32	15.94	7.58	4.39	2.48	...	2.6
			1900	7.3	23.8	15.5	4,340.9	73.0	4,459.4	74	74	34	22.22	2	24.06	68	26.17	15.23	6.79	4.47	2.47	...	2.6
11	(a) & (b).	3' 3 1/2" gauge.	1899	3.8	6.7	...	1,410.1	...	1,423.6	18	19	...	8.20	...	8.57	24	9.28	15.07	7.73	...	3.00	...	3.1
			1900	3.9	9.2	1.3	1,632.5	...	1,646.9	20	20	...	8.67	...	9.08	25	9.78	15.23	7.62	4.50	3.00	...	3.0
			1901	4.0	10.3	5.1	1,720.9	...	1,740.3	21	23	6	10.31	...	10.81	25	11.54	15.18	7.70	4.50	3.00	...	3.0
			1902	4.5	10.7	6.9	1,742.4	...	1,763.5	24	25	7	9.90	...	10.46	29	11.31	14.74	7.50	4.47	3.00	...	3.1
			1903	5.1	12.5	7.4	1,936.1	...	1,961.1	27	28	8	10.51	...	11.14	33	12.20	15.01	7.52	4.43	3.00	...	3.1
			Average ...	4.3	10.3	3.9	1,668.4	...	1,686.9	22	23	4	9.53	...	10.01	27	10.62	15.04	7.63	4.49	3.00	...	3.10
			1903 { 1st half	2.5	6.0	3.0	1,008.8	...	1,020.9	14	13	4	5.54	...	5.85	17	6.39	14.90	7.34	4.40	3.00	...	3.10
			1903 { 2nd half	2.0	6.5	3.8	927.3	...	940.2	13	15	4	4.97	...	5.20	16	6.91	15.11	7.98	4.47	3.00	...	3.13
			1899	17.5	25.3	65.7	6,916.6	69.7	7,094.8	51	42	45	24.46	1	25.85	51	27.53	17.03	7.87	4.01	2.00	...	2.07
			1900	17.2	28.7	79.7	7,871.8	67.6	8,065.0	46	42	55	26.01	1	29.45	58	31.32	12.67	6.08	3.08	2.00	...	2.04
1901	18.5	32.0	112.4	9,037.3	1.6	9,801.8	61	51	78	36.14	1	37.95	82	40.16	12.69	5.89	3.04	2.00	...	2.04			
1902	24.5	33.2	130.7	9,835.8	1.6	10,125.8	57	57	93	40.46	1	42.53	84	45.32	13.14	5.53	3.05	2.00	...	2.01			
1903	17.8	37.7	169.3	11,850.1	1.7	12,076.6	52	62	1.16	46.55	1	48.88	1.15	49.06	12.24	5.05	2.99	2.00	...	2.01			
12	(a) to (c).	Bengal and North-Western.	Average ...	19.1	31.4	111.6	9,243.3	28.4	9,433.8	51	51	78	35.12	1	36.93	78	38.40	13.55	6.20	3.23	2.00	3.78	3.0
			1903 { 1st half	9.1	18.6	61.8	5,924.4	9	6,104.8	28	31	57	23.10	...	24.26	57	24.39	12.50	5.72	3.08	2.00	...	3.01
			1903 { 2nd half	8.7	19.1	67.5	5,655.7	8	5,971.6	24	31	61	23.45	1	24.62	56	25.27	9.51	5.58	3.01	2.00	...	3.01
			1899	5	1.6	1.6	161.4	...	165.1	2	3	1	40	...	46	5	54	26.27	14.88	4.61	3.00	...	3.30
			1900	6	1.5	1.5	217.9	...	221.6	2	3	1	52	...	58	6	67	27.36	16.20	4.98	3.00	...	3.24
			1901	7	1.9	2.5	311.3	...	316.3	2	3	1	77	...	83	8	95	20.67	16.82	5.00	3.00	...	3.10
			1902	6	2.3	5.5	334.0	...	362.4	2	3	2	69	...	96	6	1.09	28.63	16.98	4.72	3.00	...	3.16
			1903	8	2.9	7.3	431.7	...	442.7	2	4	3	1.07	...	1.16	8	1.33	38.95	15.51	4.62	3.00	...	3.16
			Average ...	6	2.1	3.7	295.2	...	301.6	2	3	2	73	...	80	7	92	26.38	15.86	4.79	3.00	...	3.20
			1903 { 1st half	5	1.6	3.6	213.6	...	219.3	1	2	2	54	...	59	4	67	...	...	...	...	...	...
1903 { 2nd half	3	1.3	3.7	218.1	...	223.4	1	2	1	53	...	67	4	68	...	...	...	...	...	...			
(c) & (b).	Bengal Doonars	1899	7.8	60.2	1.6	1,911.0	2.5	1,883.1	21	74	12	6.90	...	9.97	29	10.68	11.01	5.44	4.00	2.75	...	2.90	
		1900	6.7	49.8	42.6	1,722.4	16.1	1,836.6	18	69	30	8.11	...	9.28	31	10.18	11.13	5.44	4.92	2.75	...	2.93	
		1901	6.8	46.9	45.2	1,724.4	16.9	1,842.2	19	59	44	8.59	1	9.81	26	10.57	11.24	5.55	4.00	2.75	...	2.92	
		1902	5.2	40.8	49.0	1,393.9	17.1	1,506.0	15	62	46	7.41	...	8.51	25	9.31	11.26	5.00	4.00	2.75	...	2.93	
		1903	6.3	46.9	60.3	1,668.5	17.1	1,809.1	18	60	54	8.24	2	9.58	29	10.50	11.31	5.63	4.00	2.75	...	2.94	
		Average ...	6.6	49.7	39.7	1,644.0	14.4	1,763.4	16	61	39	8.25	1	9.44	28	10.24	11.19	5.53	4.16	2.75	...	2.92	
		1903 { 1st half	3.0	22.3	29.3	780.1	7.4	852.7	9	30	27	4.20	1	4.87	17	5.37	11.41	5.63	4.00	2.75	...	2.93	
		1903 { 2nd half	3.3	24.8	30.4	778.4	9.7	846.4	9	30	27	4.04	1	4.71	12	5.18	11.22	5.63	4.00	2.75	...	2.94	
		1899	22.9	163.1	88.7	9,878.4	103.5	10,054.6	1.08	2.01	1.01	36.84	9	41.01	75	49.08	13.83	6.46	3.70	2.66	...	2.82	
		1900	22.8	149.7	5	10,576.4	98.9	10,845.8	1.14	2.31	5	45.13	9	49.72	89	51.32	14.35	6.63	3.01	...	3.16		
1901	25.3	184.1	...	11,376.0	95.2	11,650.6	1.32	2.58	...	47.03	10	51.03	1.04	53.95	15.01	6.72	3.04	3.00	...	3.20			
1902	25.6	146.6	...	11,582.9	110.4	12,105.5	1.36	2.45	...	49.16	11	53.08	1.22	59.01	16.40	8.56	2.99	2.98	...	3.10			
1903	32.8	169.5	...	13,910.1	108.1	14,220.5	1.73	2.81	...	58.77	12	63.43	1.31	66.55	15.61	8.05	3.00	2.89	...	3.15			
(c)	Burma	Average ...	25.9	156.6	...	11,484.8	102.8	11,787.4	1.32	2.43	...	47.40	10	51.45	1.04	54.18	15.04	7.32	...	2.84	2.99	3.10	
		1903 { 1st half	15.1	86.2	...	7,067.4	55.3	7,224.0	89	1.44	...	31.21	6	33.60	69	35.07	15.57	7.93	...	3.01	...	3.17	
		1903 { 2nd half	17.7	83.3	...	6,842.7	52.8	6,996.5	84	1.37	...	27.59	6	29.83	72	31.48	15.48	7.63	...	2.98	...	3.14	

\* Transferred partly to the Bengal-Nagpur railway and partly to the Madras railway from the 1st January 1901.  
† Excludes the Bengal Doonars extensions.  
‡ Excluding the Cawnpore-Burhal metre gauge link earnings which in the case of details are included with the Bengal and North-Western.

Appendix 1:  
Coaching traffic

DIX 15—contd.  
and portion of 44 in Report for 1902.]  
traffic.  
paragraphs 17 and 19 of Report.)

Year.	AVERAGE DISTANCE TRAVELLED IN MILES.						AVERAGE NUMBER OF PASSENGERS IN A COACHING TRAIN.					PERCENTAGE OF FREIGHT ON CAPACITY HAULED.				AVERAGE NUMBER OF VEHICLES IN A COACHING TRAIN.					Average weight of freight in a coaching train in tons.	Average dead weight in a coaching train in tons.	Total average weight in a coaching train in tons.		
	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	1st class.	2nd class.	Intermediate class.	3rd class.	Total.					
1899.	1.55	93.20	88.46	44.30	42.47	43.22	1.37	4.00	10.33	168.83	166.44	4.86	11.07	14.85	39.66	1.36	1.36	1.09	7.91	15.72	12.64	225.63	236.26	1899.	
1900.	1.40	87.14	86.18	45.15	42.46	43.37	1.44	4.45	9.99	155.85	171.74	4.72	13.72	16.64	37.57	1.44	1.17	1.66	7.59	14.43	11.86	219.33	231.19	1900.	
1901.	1.59	89.69	84.69	44.87	41.95	42.70	1.20	4.10	10.80	167.05	172.85	4.54	13.28	20.16	36.90	1.29	1.15	1.49	7.49	11.42	11.79	214.82	226.61	1901.	
1902.	1.44	97.70	93.69	45.39	43.27	41.31	1.32	4.64	11.94	142.40	160.30	4.58	16.51	21.33	38.39	1.33	1.12	1.60	6.96	13.66	11.13	217.65	223.76	1902.	
1903.	1.42	97.14	89.34	44.61	43.36	44.29	1.32	4.07	14.08	135.11	154.69	4.43	15.65	27.89	34.91	1.34	1.15	1.45	7.08	11.02	10.73	221.59	232.61	1903.	
Average.	1.48	92.97	88.03	44.80	42.70	43.60	1.33	4.25	11.37	152.07	169.02	4.63	14.09	20.21	37.49	1.35	1.19	1.64	7.41	13.16	11.63	219.86	231.49	Average.	
1st half } 1903	1.71	†	†	†	†	†	1.54	4.67	14.69	150.60	171.39	4.89	17.53	27.89	39.30	1.41	1.16	1.51	7.25	13.67	11.96	225.52	237.49	1st half } 1903	
2nd half } 1903	1.13	†	†	†	†	†	1.12	3.54	13.64	121.46	139.76	3.99	14.26	27.90	31.86	1.28	1.14	1.41	6.92	13.20	9.64	218.69	223.33	2nd half } 1903	
1899.	1.35	91.64	86.55	45.60	38.66	39.02	1.00	2.69	1.37	231.80	236.65	6.18	10.53	13.42	37.62	1.60	1.62	0.58	10.93	19.25	15.22	279.97	295.19	1899.	
1900.	1.59	130.11	70.22	93.90	39.21	39.76	1.33	2.98	2.08	247.95	254.35	6.47	10.48	12.32	39.28	1.75	1.81	0.84	11.50	19.20	18.04	264.60	301.25	1900.	
1899.	1.65	91.92	84.89	37.21	36.87	36.87	1.27	2.69	...	280.55	284.41	7.43	9.02	...	41.42	1.66	1.84	...	18.99	22.40	16.85	239.72	258.68	1899.	
1900.	1.72	63.76	58.22	43.28	36.30	36.30	1.23	2.43	0.22	275.49	279.59	7.92	8.95	9.02	43.93	1.74	1.73	0.43	17.37	26.11	18.36	217.38	235.75	1900.	
1901.	1.29	66.90	56.13	47.72	38.34	38.54	0.83	1.94	0.81	210.78	223.41	5.51	7.78	8.33	41.78	1.68	1.61	1.06	13.84	22.44	14.53	189.70	203.24	1901.	
1902.	0.83	68.51	58.90	51.87	36.33	36.65	0.69	1.81	0.88	181.88	185.43	3.34	4.57	2.35	39.95	1.77	1.65	1.42	12.77	20.79	12.28	188.45	200.73	1902.	
1903.	0.66	69.16	56.71	47.69	34.76	35.04	0.95	1.93	0.96	182.27	186.10	4.67	9.68	2.76	41.37	1.80	1.73	1.45	12.50	20.90	12.59	192.51	206.07	1903.	
Average.	1.33	66.05	58.95	47.64	36.58	36.69	1.04	2.14	0.71	227.99	231.79	5.77	7.99	2.86	42.30	1.77	1.71	1.09	15.00	22.53	15.32	205.35	220.67	Average.	
1st half } 1901	1.06	†	†	†	†	†	0.94	1.92	0.88	189.45	192.09	4.85	9.60	2.24	43.05	1.71	1.65	1.53	12.51	20.68	12.88	188.93	201.91	1st half } 1901	
2nd half } 1901	0.67	†	†	†	†	†	1.01	2.07	1.02	177.80	181.90	4.56	9.62	3.56	39.68	1.95	1.87	1.36	12.69	21.41	12.42	198.65	211.07	2nd half } 1901	
1899.	1.17	33.37	41.73	33.65	35.54	33.57	0.44	0.78	1.66	177.48	180.37	2.70	3.87	8.91	43.57	1.63	1.37	0.85	13.82	19.90	11.46	137.75	149.22	1899.	
1900.	1.12	40.96	46.03	42.87	33.88	34.03	0.46	0.87	2.24	176.91	180.49	2.98	4.06	9.98	42.07	1.69	1.37	1.04	14.00	20.10	11.42	139.47	150.89	1900.	
1901.	1.4	41.55	51.66	43.95	38.02	38.17	0.43	0.96	2.87	202.02	206.30	2.81	4.10	8.38	47.65	1.68	1.54	1.57	14.55	21.59	13.02	147.31	160.33	1901.	
1902.	1.2	34.21	59.19	41.48	39.12	39.24	0.76	0.84	2.47	165.39	169.08	2.43	3.53	7.28	44.31	1.55	1.40	1.51	12.88	19.56	10.72	139.19	149.91	1902.	
1903.	1.0	46.26	55.48	41.96	37.76	37.92	0.42	0.95	3.46	203.33	206.16	2.61	4.19	9.41	47.43	1.70	1.50	1.66	14.79	22.09	13.23	158.93	172.16	1903.	
Average.	1.19	39.25	50.70	43.00	36.46	36.19	0.51	0.88	2.54	185.03	188.67	2.70	4.01	8.73	45.01	1.68	1.44	1.33	14.01	20.63	11.97	144.53	156.50	Average.	
1st half } 190	1.33	†	†	†	†	†	0.39	0.92	3.23	200.51	205.05	3.45	4.99	6.94	49.28	1.69	1.48	1.63	14.13	21.38	12.98	154.10	167.06	1st half } 190	
2nd half } 190	0.27	†	†	†	†	†	0.45	0.98	3.69	206.15	211.27	2.78	4.29	9.88	46.58	1.71	1.52	1.70	15.46	22.81	13.51	163.76	177.27	2nd half } 190	
1899.	0.48	23.80	21.19	23.47	16.03	16.16	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	1899.	
1900.	0.22	23.09	19.67	21.00	15.35	15.45	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	1900.	
1901.	0.18	16.08	16.43	17.87	15.96	15.98	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	1901.	
1902.	†	17.63	17.32	15.35	16.03	16.03	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	1902.	
1903.	†	17.04	15.54	15.96	15.97	15.98	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	1903.	
Average.	0.27	19.77	18.03	18.90	15.87	15.92	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	Average.	
1st half } 190	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	1st half } 190
2nd half } 190	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	2nd half } 190
1899.	1.37	48.65	42.71	40.88	34.27	34.62	1.13	7.78	0.25	186.83	196.00	5.56	23.88	9.33	49.56	1.90	2.53	0.07	12.68	20.63	13.94	139.23	153.17	1899.	
1900.	1.41	45.48	42.04	39.08	32.63	33.05	0.91	8.20	4.98	169.60	191.58	4.76	19.06	17.69	48.91	1.82	2.44	1.66	11.56	20.91	13.11	136.02	145.13	1900.	
1901.	1.39	46.80	42.80	46.29	34.78	35.00	1.02	6.47	6.70	192.23	206.43	5.28	18.78	20.25	53.34	1.97	2.70	1.69	11.93	21.57	13.54	140.56	154.10	1901.	
1902.	1.30	48.80	43.80	46.01	37.12	37.30	0.86	6.10	7.55	177.30	191.81	4.43	17.15	20.50	47.75	1.97	2.64	1.69	12.08	22.31	12.73	143.72	156.44	1902.	
1903.	1.54	48.91	43.50	41.89	36.66	36.82	1.06	7.03	8.88	197.06	214.03	5.30	21.46	33.97	51.79	1.94	2.33	1.89	13.11	22.98	14.29	145.10	159.39	1903.	
Average.	1.36	47.73	43.91	44.63	35.49	36.34	1.00	6.73	5.64	184.60	197.96	5.07	19.87	24.15	49.87	1.92	2.57	1.42	12.27	21.68	13.12	140.93	154.05	Average.	
1st half } 190	1.67	†	†	†	†	†	1.12	7.65	9.96	216.17	236.60	4.95	21.12	35.21	55.31	2.20	2.63	1.94	13.61	24.35	15.89	151.68	167.56	1st half } 190	
2nd half } 190	1.39	†	†	†	†	†	1.00	6.50	8.21	179.03	194.74	5.68	21.81	32.80	46.57	1.74	2.08	1.65	12.68	21.81	12.93	139.49	153.42	2nd half } 190	
1899.	1.53	48.02	25.94	00.75	27.59	27.00	1.13	4.73	7.15	203.55	213.39	7.47	13.68	23.85	49.02	1.82	2.67	1.32	14.31	22.87	13.64	169.19	172.69	1899.	
1900.	1.87	54.40	30.98	...	27.15	27.31	1.14	4.99	3.98	215.09	221.23	7.59	14.61	15.51	48.88	1.66	2.68	1.12	15.07	33.46	16.19	149.03	165.22	1900.	
1901.	1.79	66.68	47.72	...	26.10	26.31	1.29	5.71	...	219.49	226.49	8.97	21.30	...	46.79	1.79	2.35	...	15.68	33.53	16.83	162.78	179.61	1901.	
1902.	1.68	62.16	37.54	...	26.49	26.52	1.06	3.88	...	206.39	211.33	9.90	18.20	...											

Appendix 15.  
Coaching traffic.

APPEN  
[Appendices 14, 15, 3  
Coaching  
(Referred to in par

Main head.	Sub-head.	Railway including branches worked.	Year.	NUMBER CARRIED IN HUNDREDS.					EARNINGS IN THOUSANDS.							AVERAGE RATE CHARGED PER MILE IN PISE.									
				1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total passenger earnings.	Pure earnings.	Total earnings from coaching traffic.	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.		
16	(a)	3' 31" gauge— contd. Deoghur.	1899	1,0	...	...	222,0	...	222,0	...	...	...	30	...	30	...	30	20'04	...	...	5'11	...	5'18		
			1900	1,0	...	...	231,0	...	231,0	...	...	...	30	...	30	...	31	20'04	...	...	4'27	...	5'34		
			1901	2,3	...	...	326,7	...	326,7	...	...	...	43	...	43	...	43	...	...	...	...	...	...	5'62	
			1902	1,3	...	...	184,8	...	184,8	...	...	...	26	...	26	...	26	...	...	...	...	...	...	...	
			1903	1,3	...	2,8	258,3	...	262,3	...	1	...	1	35	...	37	...	37	24'00	...	12'00	6'00	...	...	
			Average ...	1,1	...	5	244,6	...	246,2	...	...	...	...	33	...	33	...	33	21'35	...	12'00	5'13	...	...	5'14
			1903 { 1st half	4	...	6	108,2	...	107,2	...	...	...	...	13	...	14	...	14	...	...	...	...	...	...	...
			{ 2nd half	8	...	2,2	152,1	...	155,1	...	1	...	1	22	...	23	...	23	...	...	...	...	...	...	...
			1899	4,3	2,9	...	236,7	...	243,9	11	4	...	1,01	...	1,16	7	1,39	21'92	11'23	...	4'00	...	4'86		
			1900	3,8	2,9	...	272,3	...	279,0	10	4	...	1,15	...	1,29	8	1,51	22'18	11'31	...	4'00	...	4'35		
1901	4,1	3,0	...	282,8	...	289,9	9	4	...	1,04	...	1,17	8	1,36	22'10	11'38	...	4'00	...	4'39					
1902	4,0	3,0	...	295,3	...	302,3	9	4	...	1,09	...	1,22	8	1,43	21'98	11'38	...	4'00	...	4'35					
1903	3,8	3,0	...	292,2	...	299,0	9	4	...	1,07	...	1,20	8	1,42	21'72	11'47	...	3'84	...	4'29					
Average ...	4,0	3,0	...	275,9	...	282,8	10	4	...	1,07	...	1,21	8	1,43	21'98	11'36	...	3'99	...	4'45					
1903 { 1st half	2,0	1,5	...	149,0	...	152,5	6	2	...	...	...	57	...	64	...	74	...	...	...	...	...				
{ 2nd half	1,8	1,5	...	143,2	...	146,5	4	2	...	...	...	50	...	56	...	68	...	...	...	...	...				
17	(a) and (b).	Dibru-Sadiya	1899	†	†	†	†	†	†	56	87	1,42	18,08	5	20,98	12	23,43	†	†	†	†	†	†		
			1900	†	†	†	†	†	†	58	87	1,61	22,09	5	25,19	13	29,05	†	†	†	†	†	†		
			1901	†	†	†	†	†	†	60	97	1,77	22,02	6	25,42	15	28,30	†	†	†	†	†	†		
			1902	†	†	†	†	†	†	64	93	1,87	23,31	6	26,81	17	30,08	†	†	†	†	†	†		
			1903	†	†	†	†	†	†	73	1,09	2,19	25,64	6	29,61	2,14	33,34	†	†	†	†	†	†		
			Average ...	1	†	†	†	†	†	62	95	1,77	22,20	6	25,80	1,99	28,64	†	†	†	†	†	†	†	
			1903 { 1st half	†	†	†	†	†	†	36	54	92	12,41	3	14,26	85	15,76	13'80	6'45	3'12	2'60	...	2'65		
			{ 2nd half	†	†	†	†	†	†	37	55	1,27	13,13	3	15,35	1,29	17,68	13'77	6'10	3'03	2'60	...	2'65		
			1899	1	7	...	17,9	...	18,7	...	1	...	8	...	9	...	10	...	...	...	...	...	...	2'28	
			1900	2,2	12,6	...	573,4	...	589,3	9	20	...	2,83	...	3,17	7	3,45	11'52	5'06	...	2'00	...	2'13		
1901	3,6	22,6	...	1,145,0	5,3	1,176,5	21	49	...	8,44	...	7,22	25	7,88	11'29	4'76	...	2'00	6'58	2'15					
1902	4,2	27,2	...	1,188,9	4,0	1,216,3	24	55	...	8,82	...	7,57	40	8,82	10'87	4'57	...	2'00	3'08	2'15					
1903	3,2	25,7	...	1,160,1	4,0	1,183,0	19	50	...	6,10	...	6,94	33	7,60	11'24	4'87	...	2'00	2'61	2'14					
Average ...	2,7	17,8	...	813,5	2,7	836,6	15	35	...	4,42	...	4,96	1	5,53	11'24	4'91	...	2'09	4'15	2'17					
1903 { 1st half	1,7	13,3	...	573,7	2,4	591,1	10	26	...	3,06	...	3,47	17	3,97	10'30	4'66	...	2'00	...	2'15					
{ 2nd half	1,5	12,4	...	576,4	1,6	591,9	9	24	...	3,02	...	3,37	16	3,99	10'61	4'63	...	2'00	...	2'14					
18	(a) to (c).	Hyderabad-Godavari valley.	1899	1,3	6,9	...	869,1	...	877,2	9	15	...	4,93	...	5,17	19	5,78	18'00	6'00	...	2'00	...	2'07		
			1900	1,0	7,1	...	778,5	...	786,6	7	15	...	4,34	...	4,56	27	5,14	18'00	6'00	...	2'00	...	2'07		
			1901	2,7	16,8	...	1,447,6	...	1,467,1	20	42	...	7,79	...	8,41	35	9,34	14'40	5'98	...	2'05	...	2'18		
			1902	3,1	16,9	...	1,358,1	...	1,378,0	22	44	...	7,90	...	8,58	43	9,82	14'23	6'00	...	2'08	...	2'18		
			1903	3,9	19,8	...	1,536,4	...	1,560,1	28	47	...	8,65	...	9,40	54	10,71	13'64	6'07	...	2'06	...	2'19		
			Average ...	2,4	13,5	...	1,197,9	...	1,213,8	17	33	...	6,72	...	7,23	36	8,16	15'65	6'01	...	2'08	...	2'13		
			1903 { 1st half	1,8	9,3	...	782,9	...	794,0	15	24	...	4,52	...	4,91	28	5,68	14'07	6'00	...	2'05	...	2'15		
			{ 2nd half	2,1	10,5	...	763,5	...	786,1	13	23	...	4,13	...	4,49	26	5,08	13'10	6'00	...	2'06	...	2'19		
			1899	20,5	82,7	259,5	10,629,6	5,3	11,197,6	1,33	2,22	2,77	54,73	2	61,07	4,20	68,81	13'52	6'09	3'98	2'00	...	2'13		
			1900	20,9	75,3	275,3	10,736,7	4,9	11,112,9	1,20	2,03	2,82	52,55	2	59,72	4,50	68,63	13'34	6'33	2'98	2'00	...	2'12		
1901	19,6	87,9	308,4	12,451,8	6,0	12,478,7	1,33	2,47	3,18	61,56	2	68,55	4,34	76,66	13'35	5'91	2'98	2'00	1'90	2'12					
1902	23,4	91,0	288,0	11,983,3	5,3	12,091,0	1,71	2,61	3,03	56,99	1	64,25	4,83	73,96	13'65	6'31	2'99	2'00	1'90	2'14					
1903	25,7	83,2	280,0	12,040,8	6,9	12,446,6	1,89	2,66	3,07	59,85	2	67,42	4,47	76,54	14'11	6'26	2'99	2'00	1'89	2'14					
Average ...	22,0	86,0	282,2	11,548,4	5,7	11,944,4	1,49	2,36	2,99	57,14	2	64,00	4,47	72,52	13'59	6'19	2'98	2'00	1'93	2'13					
1903 { 1st half	14,3	47,1	147,4	6,129,5	3,8	6,342,1	1,18	1,84	1,69	29,90	1	34,02	2,26	39,39	14'15	6'22	2'99	2'01	...	2'17					
{ 2nd half	11,4	46,1	132,6	5,911,3	3,1	6,104,5	71	1,22	1,48	29,98	1	33,40	2,21	37,16	13'84	6'24	2'99	2'01	...	2'14					
19	(b) and (c) to (d).	Rajputana-Malwa.	Average ...	22,0	86,0	282,2	11,548,4	5,7	11,944,4	1,49	2,36	2,99	57,14	2	64,00	4,47	72,52	13'59	6'19	2'98	2'00	1'93	2'13		
			1903 { 1st half	14,3	47,1	147,4	6,129,5	3,8	6,342,1	1,18	1,84	1,69	29,90	1	34,02	2,26	39,39	14'15	6'22	2'99	2'01	...	2'17		

\* Information not furnished.  
† Included with the Eastern Bengal State railway (5' 6" gauge).  
‡ Including the parcel earnings of the Eastern Bengal State 3' 31" gauge railway which are included with the 5' 6" gauge.







Appendix 15.  
Coaching traffic.

APPEN  
[Appendices 14, 15, 38]  
Coaching  
(Referred to in para

Main head.	Sub-head.	Railway including branches worked.	Year.	NUMBER CARRIED IN HUNDREDS.					EARNINGS IN THOUSANDS.						AVERAGE RATE CHARGED PER MILE IN PIES.									
				1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total passenger earnings.	Parcel earnings.	Total earnings from coaching traffic.	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.	
19	(a) & (b).	3' 3" gauge—conclid. Rohilkund and Kumaon.	1899	4,8	15,9	11,7	1,199,7	...	1,171,9	33	50	10	4,42	...	5,44	29	6,23	28'04	11'17	4'01	2'20	...	2'59	
			1900	4,6	15,9	11,5	1,188,0	...	1,218,0	32	56	10	4,59	...	5,57	24	6,30	28'37	9'32	3'75	2'18	...	2'53	
			1901	5,5	19,4	14,0	1,600,3	...	1,539,1	40	65	12	5,76	...	6,93	26	7,83	28'47	7'79	4'00	2'19	...	2'52	
			1902	5,5	21,4	15,1	1,550,3	...	1,592,3	40	73	13	5,76	...	7,02	29	7,93	28'32	7'28	4'00	2'19	...	2'59	
			1903	5,3	18,6	13,4	1,509,1	...	1,545,4	40	66	11	5,54	...	6,71	30	7,66	27'00	8'59	4'00	2'19	...	2'54	
			Average ...	5,1	18,3	13,1	1,377,1	...	1,413,5	37	64	11	5,21	...	6,33	28	7,21	28'56	8'59	3'95	2'19	...	2'54	
			1903 { 1st half	2,5	8,3	6,9	79,7	...	806,4	19	29	6	2,93	...	3,47	13	3,89	26'27	8'79	4'00	2'19	...	2'46	
			{ 2nd half	2,8	10,3	6,5	719,4	...	738,0	21	37	5	2,61	...	3,24	15	3,78	27'68	8'97	4'01	2'20	...	2'60	
			1899	1,5	2,9	...	45,1	5	50,0	11	9	...	19	...	39	4	49	78'00	38'00	...	7'48	...	13'37	
			1900	3,2	5,7	...	73,3	1,2	83,4	28	23	...	34	...	84	7	1,14	78'00	38'00	...	7'50	...	15'10	
1901	3,3	5,9	...	65,8	1,2	76,3	27	37	...	40	...	94	8	1,31	78'00	38'00	...	7'00	1'90	13'71				
1902	3,3	10,9	...	322,2	2,9	339,9	31	34	...	1,27	...	1,92	13	2,39	74'85	26'54	...	3'42	1'49	14'94				
1903	4,8	18,3	...	665,1	6,7	694,9	34	40	...	2,36	...	3,10	12	3,57	69'23	17'92	...	3'91	0'86	13'86				
7	(d) & (e).	Shoranur-Cochin and Nilgiri.	Average ...	8,3	6,7	...	231,3	2,3	248,7	26	26	...	91	...	1,44	9	1,76	72'42	31'51	...	6'65	1'42	10'16	
			1903 { 1st half	2,8	9,0	...	359,6	2,7	374,3	22	20	...	1,26	...	1,69	6	1,95	...	...	...	...	...	...	
			{ 2nd half	2,0	9,3	...	305,3	4,0	320,6	12	20	...	1,08	...	1,41	6	1,62	...	...	...	...	...	...	
			1899	16,9	93,5	...	12,4	9,1	198,9	12,756,2	77	1,52	...	39,55	9	41,03	1,17	41,69	11'65	5'85	...	2'00	...	2'07
			1900	16,7	91,2	...	13,062,8	261,1	13,371,9	81	1,53	...	45,25	14	47,73	1,36	50,59	11'62	5'11	...	2'00	...	2'07	
			1901	18,1	100,0	...	13,691,8	325,2	14,036,1	86	1,71	...	49,94	15	51,70	1,49	54,26	11'81	5'90	...	2'05	0'58	2'11	
			1902	20,4	114,2	...	14,911,7	341,0	15,387,3	1,04	1,84	...	53,32	15	56,35	1,67	59,89	11'89	5'91	...	2'05	0'54	2'12	
			1903	22,6	137,6	...	17,391,4	328,4	17,877,9	1,22	2,30	...	61,73	13	65,37	1,84	69,05	11'94	6'00	...	2'05	1'32	2'13	
			Average ...	18,9	107,3	...	14,269,4	290,1	14,685,6	94	1,78	...	49,76	13	52,62	1,51	55,65	11'78	5'75	...	2'03	0'81	2'10	
			1903 { 1st half	10,7	68,4	...	8,530,3	154,7	8,732,1	65	1,12	...	30,42	6	32,25	95	34,16	11'83	5'99	...	2'05	...	2'14	
{ 2nd half	11,8	71,1	...	8,961,1	171,7	9,115,7	57	1,16	...	31,21	6	33,12	89	34,99	11'73	5'91	...	2'05	...	2'13				
20	(a) to (e).	South Indian	Average ...	16,9	69,9	...	5,431,0	15,9	5,533,0	1,03	1,56	...	23,39	2	25,99	1,89	30,17	12'60	5'40	...	2'04	1'02	2'20	
			1903 { 1st half	8,4	40,0	...	3,369,2	9,3	3,427,9	70	94	...	14,37	1	16,02	1,00	18,47	14'08	6'09	...	2'09	...	2'26	
			{ 2nd half	8,3	34,9	...	3,219,2	7,6	3,270,0	62	84	...	13,64	1	15,03	1,10	17,37	15'40	6'09	...	2'10	...	2'26	
			1899	8	1,3	1,9	185,8	4	190,2	2	3	2	63	...	91	2	98	18'00	9'00	3'00	2'00	...	2'13	
			1900	4	1,1	2,4	165,4	5	169,8	3	3	2	74	...	82	3	90	17'98	9'00	3'00	2'00	...	2'13	
			1901	5	1,3	2,5	184,8	...	189,1	3	3	2	97	...	95	3	1,04	17'98	9'00	3'00	1'99	...	2'12	
			1902	5	1,5	2,9	173,3	5	178,7	3	4	3	86	...	95	3	1,03	17'91	8'99	2'99	1'99	...	2'15	
			1903	7	1,9	3,2	168,9	4	170,1	4	5	3	96	...	98	3	1,09	17'83	8'98	3'00	1'99	...	2'18	
			Average ...	6	1,4	2,8	179,9	4	183,6	3	4	2	83	...	92	3	1,01	17'93	8'97	3'00	1'99	...	2'14	
			1903 { 1st half	4	1,0	1,3	95,6	2	98,7	3	3	1	45	...	52	2	57	17'81	8'99	3'00	1'99	...	2'19	
{ 2nd half	3	9	1,9	85,1	2	91,4	1	2	2	41	...	45	1	52	17'99	8'99	3'00	1'99	...	2'16				
1	(a) to (g).	Southern Mahratta.	Average ...	1,9	11,0	...	200,0	...	221,9	2	5	...	39	...	46	*	52	12'00	6'00	...	2'50	...	2'78	
			1900	1,7	12,5	...	229,2	...	243,5	2	6	...	41	...	49	*	57	12'00	6'00	...	2'50	...	2'78	
			1901	1,6	11,1	...	237,6	...	250,5	2	5	...	43	...	50	3	56	12'00	6'00	...	2'50	...	2'78	
			1899	1,9	11,0	...	200,0	...	221,9	2	5	...	39	...	46	*	52	12'00	6'00	...	2'50	...	2'78	
			1900	1,7	12,5	...	229,2	...	243,5	2	6	...	41	...	49	*	57	12'00	6'00	...	2'50	...	2'78	
			1901	1,6	11,1	...	237,6	...	250,5	2	5	...	43	...	50	3	56	12'00	6'00	...	2'50	...	2'78	
			1899	1,9	11,0	...	200,0	...	221,9	2	5	...	39	...	46	*	52	12'00	6'00	...	2'50	...	2'78	
			1900	1,7	12,5	...	229,2	...	243,5	2	6	...	41	...	49	*	57	12'00	6'00	...	2'50	...	2'78	
			1901	1,6	11,1	...	237,6	...	250,5	2	5	...	43	...	50	3	56	12'00	6'00	...	2'50	...	2'78	
			Average ...	6	1,4	2,8	179,9	4	183,6	3	4	2	83	...	92	3	1,01	17'93	8'97	3'00	1'99	...	2'14	
1903 { 1st half	4	1,0	1,3	95,6	2	98,7	3	3	1	45	...	52	2	57	17'81	8'99	3'00	1'99	...	2'19				
{ 2nd half	3	9	1,9	85,1	2	91,4	1	2	2	41	...	45	1	52	17'99	8'99	3'00	1'99	...	2'16				
(A)		West of India Portuguese. †	1899	1,9	11,0	...	200,0	...	221,9	2	5	...	39	...	46	*	52	12'00	6'00	...	2'50	...	2'78	
			1900	1,7	12,5	...	229,2	...	243,5	2	6	...	41	...	49	*	57	12'00	6'00	...	2'50	...	2'78	
			1901	1,6	11,1	...	237,6	...	250,5	2	5	...	43	...	50	3	56	12'00	6'00	...	2'50	...	2'78	
			Average ...	6	1,4	2,8	179,9	4	183,6	3	4	2	83	...	92	3	1,01	17'93	8'97	3'00	1'99	...	2'14	

\* Information not available.  
† Included with the Southern Mahratta railway after 1901.  
‡ Difference in rates as compared with previous years is due to the inclusion of the transactions of the Shoranur-Cochin...

DIX 15—contd.  
and portion of 44 in Report for 1902.]

Appendix 15.  
Coaching traffic.

traffic.  
graphs 17 and 19 of Report.)

Year.	Average cost of carrying a passenger one mile in pica.	AVERAGE DISTANCE TRAVELLED IN MILES.					AVERAGE NUMBER OF PASSENGERS IN A COACHING TRAIN.					PERCENTAGE OF FREIGHT ON CAPACITY HAULED.					AVERAGE NUMBER OF VEHICLES IN A COACHING TRAIN.					Average weight of freight in a coaching train in tons.	Average dead weight in a coaching train in tons.	Total average weight in a coaching train in tons.		
		1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.				Total.	
1899	1.51	52.74	63.57	39.41	33.89	34.42	1.48	6.13	2.78	233.68	241.06	5.05	24.83	11.27	39.44	2.44	2.07	1.43	10.67	23.86	16.28	163.34	199.56	1899.		
1900	1.46	50.03	69.51	40.54	34.64	34.64	1.28	6.19	2.80	228.23	236.30	4.98	28.24	9.28	69.01	2.14	1.83	1.31	17.38	25.68	15.76	171.81	189.06	1900.		
1901	1.45	53.38	83.25	40.13	33.56	34.31	1.02	5.77	2.02	180.92	189.73	5.69	41.36	11.98	46.17	1.51	1.35	0.74	17.73	12.83	12.83	122.95	135.48	1901.		
1902	1.45	52.04	69.74	40.49	32.52	33.43	0.97	6.42	2.06	170.63	180.08	5.64	40.64	12.81	43.35	1.44	0.82	0.74	11.81	17.86	11.89	120.91	132.87	1902.		
1903	1.40	54.19	76.83	40.38	32.13	32.81	0.94	4.65	1.76	158.66	160.01	5.91	29.58	11.01	40.27	1.31	1.31	0.79	11.98	17.64	11.01	123.94	134.93	1903.		
Average.	1.47	52.27	76.58	40.18	33.36	33.92	1.14	5.83	2.24	194.02	203.24	5.45	32.93	11.27	47.45	1.77	1.48	1.00	14.47	21.55	13.49	144.58	158.17	Average.		
1st half } 1903.	1.51	..	..	..	..	..	0.94	4.22	1.91	173.68	180.73	5.99	27.19	10.75	42.77	1.30	1.30	0.84	12.39	19.09	11.85	124.04	135.69	1st half } 1903.		
2nd half } 1903.	1.29	..	..	..	..	..	0.93	6.08	1.61	143.67	151.29	5.83	32.06	11.27	37.77	1.33	1.32	0.74	11.63	17.21	10.18	123.85	134.03	2nd half } 1903.		
1899.	..	16.85	16.13	..	10.97	11.52	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1899.	
1900.	..	16.69	16.28	..	11.64	12.76	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1900.	
1901.	7.89	5.82	16.85	10.18	16.72	12.70	16.61	2.79	5.41	..	45.03	53.23	17.16	110.02	..	63.64	0.59	0.15	..	1.33	2.07	4.28	59.02	63.30	1901.	
1902.	3.14	1.80	21.08	22.62	..	22.13	11.27	22.07	1.74	5.34	..	155.23	162.31	16.19	93.74	..	59.61	0.49	0.30	..	3.95	6.39	10.69	108.21	118.90	1902.
1903.	1.74	23.16	24.41	..	23.40	19.98	23.39	1.65	6.34	..	219.82	227.71	11.43	65.97	..	51.44	0.77	0.62	..	6.37	9.50	14.81	145.09	159.70	1903.	
Average.	1.87	18.88	19.12	..	17.01	14.65	17.27	2.03	5.70	..	140.03	147.75	14.83	69.91	..	58.23	0.62	0.36	..	3.88	5.89	9.66	104.11	113.97	Average.	
1st half } 1903.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1st half } 1903.	
2nd half } 1903.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2nd half } 1903.	
1899.	0.94	1.13	64.06	47.51	..	30.19	..	30.37	0.75	2.94	..	222.91	226.60	7.90	18.70	..	51.38	1.10	1.45	..	13.94	19.01	14.21	137.43	151.64	1899.
1900.	0.92	1.15	51.11	55.16	..	33.89	..	33.10	0.76	3.19	..	239.43	242.93	8.33	19.03	..	54.93	1.06	1.32	..	13.99	16.75	15.31	141.72	157.03	1900.
1901.	0.88	1.29	79.00	55.85	..	33.89	15.29	33.47	0.85	3.61	..	262.03	267.19	8.72	20.47	..	58.84	1.11	1.36	..	14.37	19.38	18.81	145.77	162.58	1901.
1902.	0.83	1.29	62.48	52.46	..	33.42	16.13	33.25	0.95	3.67	..	273.05	277.57	9.34	24.01	..	62.09	1.10	1.32	..	14.03	18.86	17.47	143.14	160.61	1902.
1903.	0.89	1.44	66.73	53.49	..	33.17	6.29	32.69	1.08	3.84	..	297.79	302.63	9.65	26.11	..	64.01	1.11	1.35	..	14.68	19.23	18.95	149.93	167.88	1903.
Average.	0.84	1.26	70.67	52.65	..	33.67	12.24	32.62	0.87	3.41	..	259.14	263.41	8.79	21.26	..	58.25	1.10	1.36	..	14.20	19.19	16.55	143.40	159.95	Average.
1st half } 1903.	0.85	1.40	..	..	..	..	..	..	1.12	3.82	..	300.64	305.58	10.24	25.34	..	65.31	1.14	1.39	..	14.50	19.78	19.12	149.06	167.18	1st half } 1903.
2nd half } 1903.	0.73	1.40	..	..	..	..	..	..	0.49	3.67	..	295.04	299.82	9.06	26.18	..	63.80	1.09	1.32	..	14.55	19.89	18.79	149.77	168.65	2nd half } 1903.
1899.	1.45	0.76	88.57	75.83	..	43.30	..	44.21	1.73	6.59	..	171.77	180.10	13.78	30.04	..	41.85	1.58	1.76	..	12.97	19.53	12.77	149.74	163.52	1899.
1900.	1.27	0.77	83.98	79.67	..	41.10	..	41.75	1.40	4.81	..	190.42	198.63	13.72	25.04	..	44.32	1.26	1.51	..	13.41	19.11	13.41	146.04	160.05	1900.
1901.	1.50	0.66	99.03	86.47	..	40.06	19.04	40.62	1.14	3.78	..	172.63	177.55	11.77	23.01	..	43.33	1.21	1.32	..	12.30	17.63	12.01	141.42	153.43	1901.
1902.	1.41	0.63	99.25	83.58	..	39.70	17.45	40.34	1.30	4.49	..	171.26	177.05	10.09	22.11	..	43.08	1.57	1.63	..	12.32	15.52	12.24	146.61	158.85	1902.
1903.	1.36	0.91	92.67	74.61	..	38.84	21.09	39.34	1.23	3.94	..	179.71	184.87	8.95	19.07	..	44.09	1.70	1.67	..	12.69	19.08	12.67	150.43	163.10	1903.
Average.	1.40	0.81	94.50	79.91	..	40.60	19.19	41.25	1.36	4.72	..	177.16	183.24	11.64	23.85	..	43.33	1.46	1.58	..	12.72	18.16	12.62	146.97	159.59	Average.
1st half } 1903.	0.77	0.89	..	..	..	..	..	..	1.94	4.13	..	184.16	169.63	9.85	19.60	..	45.10	1.67	1.70	..	12.67	19.00	12.99	150.36	163.35	1st half } 1903.
2nd half } 1903.	0.82	0.82	..	..	..	..	..	..	1.11	3.74	..	175.21	180.06	7.88	18.52	..	43.06	1.72	1.64	..	12.70	19.08	12.34	150.51	162.85	2nd half } 1903.
1899.	0.35	0.77	36.62	51.55	51.34	48.84	..	49.96	1.05	2.39	3.48	284.45	291.39	7.06	18.57	8.11	62.04	1.23	1.07	1.79	16.01	23.77	19.79	187.76	207.65	1899.
1900.	0.36	0.78	60.11	57.32	56.04	49.00	..	49.28	1.27	2.62	5.18	305.05	314.15	7.15	18.72	9.09	62.96	1.45	1.23	3.21	19.62	29.36	30.36	223.78	243.14	1900.
1901.	0.54	0.68	66.08	57.32	51.46	45.44	..	45.63	0.98	1.70	4.67	302.96	311.31	6.50	17.33	10.26	62.26	1.21	1.29	1.90	16.77	31.17	29.23	196.67	218.90	1901.
1902.	0.63	0.63	60.06	57.75	60.43	47.47	..	48.09	1.03	2.87	4.96	286.32	293.18	6.73	18.03	11.01	65.25	1.25	1.32	1.90	15.17	23.67	19.68	187.67	207.35	1902.
1903.	0.62	0.82	62.20	52.75	63.69	45.30	..	45.47	1.36	2.86	4.87	239.62	247.71	8.98	19.23	12.33	61.44	1.25	1.26	1.65	13.33	20.72	16.67	169.70	186.37	1903.
Average.	0.66	0.66	55.05	55.34	62.60	44.81	..	45.28	1.14	2.69	4.63	283.48	291.95	7.28	18.36	10.34	60.79	1.28	1.23	1.89	16.24	23.72	19.35	192.92	212.27	Average.
1st half } 1903.	0.67	0.67	..	..	..	..	..	..	1.84	3.08	4.39	286.37	275.66	11.06	17.22	10.53	65.61	1.45	1.49	1.73	13.95	23.06	18.69	178.41	197.10	1st half } 1903.
2nd half } 1903.	0.38	0.38	..	..	..	..	..	..	0.67	2.65	5.36	210.67	219.74	6.90	31.25	14.14	57.37	1.06	1.04	1.57	12.72	19.37	14.55	161.00	178.65	2nd half } 1903.
1899.	1.18	2.42	15.41	14.07	..	14.16	..	14.16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1899.
1900.	0.1	5.23	18.29	14.72	..	13.99	..	13.99	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1900.
1901.	0.8	1.09	18.87	15.10	..	13.69	..	13.79	0.88	4.43	..	65.74	91.05	0.65	3.29	..	63.63	1.19	1.01	..	7.18	9.38	6.44	141.21	147.65	1901.

Appendix 15.  
Coaching traffic.

Coaching

(Referred to in paragraphs

Main head.	Sub-head.	Railway including branches worked.	Year.	NUMBER CARRIED IN HUNDREDS.					EARNINGS IN THOUSANDS.							AVERAGE RATE CHARGED PER MILE IN PIES.									
				1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total passenger earnings.	Parcel earnings.	Total earnings from coaching traffic.	1st class.	2nd class.	Intermediate class.	3rd class.	Season and vendors' tickets.	Total.		
24	(a)	2' 6" Gauge.	1899	..	7	..	54.0	..	54.7	..	2	..	17	..	19	1	31	..	23.56	..	3'00	..	3'28		
			1900	..	7	..	64.5	..	65.2	..	2	..	21	..	23	1	24	..	23'02	..	3'00	..	3'21		
			1901	..	7	..	76.8	..	77.3	..	2	..	23	..	25	1	26	..	23'67	..	3'00	..	3'14		
			1902	..	7	..	71.1	..	71.9	..	2	..	23	..	24	1	25	..	23'88	..	3'00	..	3'18		
			1903	..	6	..	61.5	..	61.9	..	1	..	19	..	20	1	22	..	23'68	..	3'00	..	3'14		
			Average ...	6	..	65.6	..	66.2	..	2	..	21	..	23	1	24	..	23'14	..	3'00	..	3'19			
			1903 { 1st half	..	2	..	30.1	..	30.3	..	1	..	9	..	10	..	11	..	..	..	..	..	..		
			2nd half	..	2	..	31.4	..	31.6	..	..	..	10	..	10	..	11	..	..	..	..	..	..		
25	(a)	Bakhtiarpur-Behar Light †	1903	..	..	..	117.7	..	117.7	..	..	..	25	..	25	1	26	..	..	..	..	..	..		
			1903 { 1st half	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
			2nd half	..	..	..	117.7	..	117.7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
26	(a)	Kalka-Simla †	1903	4	6	..	4.4	..	5.6	..	4	6	..	10	..	20	..	24	42'00	27'85	..	10'50	..	15'69	
			1903 { 1st half	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
			2nd half	4	6	..	4.4	..	5.6	..	4	6	..	10	..	20	..	24	42'00	27'85	..	10'50	..	15'69	
30	(a)	Morri	1899	1.9	9.3	..	231.1	..	232.3	..	8	19	..	1.93	..	3.19	9	2.45	14'64	7'38	..	3'00	..	3'27	
			1900	1.6	8.7	..	232.9	..	233.2	..	7	19	..	1.91	..	2.17	9	2.62	14'65	7'38	..	3'00	..	3'25	
			1901	1.8	10.2	..	230.6	..	232.6	..	6	20	..	2.00	..	3.27	9	2.62	12'58	6'27	..	3'84	..	3'05	
			1902	1.8	9.0	..	233.8	..	243.3	..	6	17	..	1.75	..	1.98	8	2.23	12'33	6'09	..	3'00	..	3'21	
			1903	1.8	10.9	..	244.0	..	256.7	..	7	19	..	1.74	..	2.50	8	2.24	11'48	6'00	..	3'00	..	3'24	
			Average ...	1.7	9.6	..	236.8	..	277.6	..	7	19	..	1.86	..	2.12	9	2.37	13'23	6'62	..	3'97	..	3'20	
			1903 { 1st half	9	4.5	..	118.3	..	131.7	..	3	8	..	84	..	95	5	1.09	..	..	..	..	..		
			2nd half	9	6.4	..	127.7	..	135.0	..	4	11	..	90	..	1.05	3	1.15	..	..	..	..	..		
2	(a)	Parlakimedi Light.	1903	2	..	1.7	50.1	..	52.0	..	..	..	1	12	..	1	..	14	18'00	..	4'60	2'60	..	2'65	
			1903 { 1st half	1	..	8	24.5	..	25.4	..	..	..	..	6	..	6	..	7	..	..	..	..	..	..	
			2nd half	1	..	9	25.6	..	26.6	..	..	..	..	6	..	7	..	7	..	..	..	..	..	..	
19	(a)	Powsyan Light	1901	3	5	..	221.1	..	221.9	..	..	..	36	..	36	..	36	..	..	..	..	..	..	..	
			1902	2	8	..	257.1	..	258.1	..	..	1	..	40	..	41	..	41	..	..	..	..	..	..	
			1903	2	7	..	267.9	..	268.8	..	..	1	..	42	..	43	..	44	..	..	..	..	..	..	
			Average ...	2	7	..	248.7	..	249.6	..	..	..	..	1	..	39	..	40	..	..	..	..	..	..	
			1903 { 1st half	1	4	..	134.2	..	134.7	..	..	..	..	1	..	21	..	22	..	23	..	..	..	..	..
			2nd half	1	9	..	133.7	..	134.1	..	..	..	21	..	21	..	22	..	..	..	..	..	..		
3	(b) & (d)	Jubbulpore-Gondia extension and Raipur-Dhamtari.	1901	†	†	†	†	†	†	..	..	1	27	..	28	..	29	17'00	7'18	3'00	3'00	..	2'04		
			1902	†	†	†	†	†	†	..	..	..	29	..	29	..	31	15'97	8'07	3'00	2'00	..	2'04		
			1903	†	†	†	†	†	†	..	..	1	38	..	38	..	40	15'39	7'03	4'60	3'00	..	3'07		
			Average ...	†	†	†	†	†	†	†	..	..	..	1	31	..	32	..	33	16'12	6'05	3'60	2'33	..	2'38
			1903 { 1st half	†	†	†	†	†	†	†	..	..	1	19	..	20	..	21	15'84	7'20	4'60	3'00	..	3'07	
			2nd half	†	†	†	†	†	..	..	..	17	..	18	..	19	15'15	6'64	4'60	3'00	..	3'07			
31	(a)	Ranaghat-Krishnagarh.	1899	..	..	..	156.5	..	156.5	..	..	..	45	..	45	..	45	..	..	..	..	..	..		
			1900	..	..	..	239.2	..	239.2	..	..	..	4	61	..	65	..	67	..	..	..	..	..		
			1901	..	..	..	228.1	..	226.1	..	..	..	..	9	58	..	65	..	67	..	..	..	..		
			1902	..	..	..	240.7	..	240.7	..	..	..	..	10	60	..	70	..	72	..	..	..	..		
			1903	..	6	..	31.2	..	216.9	..	247.8	..	..	11	62	..	78	..	77	..	..	..	..		
			Average ...	3	..	8.6	213.1	..	221.9	..	..	7	57	..	64	..	66	..	..	..	..	..			
			1903 { 1st half	3	..	14.6	106.9	..	121.8	..	..	5	31	..	36	..	38	..	..	..	..	..			
			2nd half	3	..	16.6	109.1	..	126.0	..	..	6	31	..	37	..	39	..	..	..	..	..			

\* Information not available.

† Opened in 1903.

‡ Included with the Bengal-Nagpur railway.







Appendix 16.  
Goods traffic.

APPEN  
(Appendices 16, 17, 32 and  
Goods  
(Referred to in paragraphs

NUMBER.	Main head.	Sub-head.	Railway including branches worked.	Year.	QUANTITY CARRIED IN THOUSANDS OF TONS.						EARNINGS IN THOUSANDS OF RUPEES.						
					General merchandise.	Military stores.	Coal and coke for the public and foreign railways.	Revenue stores including coal and materials for construction.	Live-stock.	Total.	General merchandise.	Military stores.	Coal and coke for the public and foreign railways.	Revenue stores including coal and materials for construction.	Live-stock.	Rents, miscellaneous, etc.	Total.
1	(a)	Bengal Central	5' 6" gauge.	1899	104	...	20	16	...	140	3.02	...	20	8	...	8	3.38
				1900	159	...	24	23	...	206	4.78	...	25	19	...	4	5.26
				1901	125	1	29	23	...	178	4.16	...	31	3	...	...	4.52
				1902	112	2	25	21	...	159	3.86	...	28	9	...	1	4.25
				1903	168	2	24	17	...	206	5.59	...	4	8	...	1	6.00
				Average	138	2	24	20	...	178	4.28	3	28	9	...	3	4.68
				1903 { 1st half	38	1	13	8	...	68	1.06	3	13	4	...	...	1.25
				1903 { 2nd half	137	1	12	9	...	148	4.63	2	15	4	...	1	4.75
				1899	671	...	652	538	1	1,852	52.95	5	5.20	5.26	4	14	63.64
				1900	898	1	754	315	2	1,970	78.98	16	6.73	4.70	9	96	91.62
1901	880	...	805	524	3	2,213	50.07	4	8.70	6.10	28	25	65.39				
1902	993	...	906	975	6	2,880	53.97	5	10.56	11.60	55	25	76.98				
1903	1,025	...	1,177	707	9	2,918	60.33	4	17.41	10.37	60	38	89.13				
Average	88	...	859	610	4	2,366	59.28	7	9.72	7.61	30	39	77.35				
1903 { 1st half	600	...	554	296	4	1,454	35.83	3	8.16	5.05	35	18	40.60				
1903 { 2nd half	425	...	623	411	5	1,464	24.50	1	9.25	5.32	25	20	39.63				
1899	1,680	1	68	475	32	2,256	1,15.40	22	2.90	5.40	4.15	10	1,28.17				
1900	1,882	1	96	424	33	2,436	1,19.32	20	4.21	4.50	3.70	18	1,32.11				
1901	1,509	1	70	374	19	1,973	97.81	16	2.82	4.32	3.10	13	1,08.34				
1902	1,516	1	42	352	16	1,927	97.91	20	1.50	3.78	3.43	12	1,06.94				
1903	1,411	2	37	301	19	1,770	1,06.81	44	1.74	3.23	4.08	13	1,15.88				
Average	1,600	1	62	385	24	2,072	1,07.35	25	2.83	4.25	3.68	13	1,18.29				
1903 { 1st half	927	1	19	165	11	1,123	68.25	15	91	2.05	1.94	8	71.28				
1903 { 2nd half	484	1	18	138	8	647	40.08	29	83	1.18	2.09	5	44.60				
1899	1,115	...	206	242	1	1,564	50.31	1	1.35	2.79	2	63	55.11				
1900	1,230	...	244	207	1	1,682	55.04	1	2.04	2.33	2	72	60.16				
1901	1,114	...	277	224	1	1,616	51.85	1	2.33	2.28	2	58	57.07				
1902	1,228	...	276	295	1	1,800	59.18	1	1.94	3.13	1	44	64.71				
1903	1,645	1	339	669	...	2,654	55.19	3	1.93	3.36	1	46	60.98				
Average	1,268	...	268	328	1	1,863	54.31	1	1.92	2.78	2	57	59.61				
1903 { 1st half	629	1	173	391	...	1,183	15.02	1	87	1.82	1	10	17.63				
1903 { 2nd half	1,046	...	167	289	...	1,471	40.17	2	1.06	1.54	...	36	43.15				
1899	3,836	10	3,898	1,278	27	9,049	2,87.87	3.50	1,95.30	17.56	1.88	1.14	4,47.26				
1900	3,858	11	4,658	1,488	38	10,053	2,96.43	4.31	1,57.12	18.15	2.21	81	4,79.03				
1901	3,658	6	5,294	1,456	6	10,418	2,86.01	3.13	1,80.25	19.28	1.92	64	4,91.23				
1902	3,910	11	5,042	1,615	6	10,484	2,74.84	3.46	1,71.72	20.75	2.08	90	4,73.75				
1903	4,006	20	5,868	1,301	7	10,702	2,85.45	4.48	1,71.53	18.75	2.61	1.69	4,84.51				
Average	3,833	11	4,852	1,428	17	10,141	2,86.12	3.78	1,63.18	18.90	2.14	1.04	4,75.16				
1903 { 1st half	2,312	14	2,668	619	...	5,617	1,54.93	2.53	93.27	9.80	1.15	86	2,52.52				
1903 { 2nd half	1,894	6	2,700	802	7	5,085	1,30.52	1.98	68.20	8.95	1.46	84	2,31.99				
1899	2,279	9	138	558	13	2,997	2,54.05	2.03	3.23	9.69	2.47	69	2,72.16				
1900	2,322	7	138	520	25	3,012	2,32.65	1.83	4.36	9.18	3.68	69	2,52.59				
1901	2,517	8	146	513	29	3,213	2,94.92	1.90	3.57	7.16	3.70	2.03	3,13.28				
1902	2,577	11	148	525	17	3,278	2,90.82	2.63	3.54	9.55	2.98	1.76	3,11.28				
1903	3,206	24	155	1,117	16	4,518	3,31.48	4.48	2.90	10.74	2.64	26	3,52.50				
Average	2,580	12	145	647	20	3,404	2,80.79	2.57	3.52	9.26	3.08	1.13	3,00.35				
1903 { 1st half	1,984	10	79	505	7	2,595	2,12.59	1.86	1.52	5.76	1.13	60	2,23.34				
1903 { 2nd half	1,312	14	76	612	9	1,823	1,18.90	2.62	1.38	4.98	1.63	24	1,29.16				
1899	573	2	11	418	2	1,001	47.39	41	55	3.17	10	14	51.76				
1900	872	1	6	332	5	1,216	77.72	11	25	4.12	57	1.83	84.60				
1901	783	1	13	512	...	1,309	62.90	14	61	4.95	15	16	68.59				
1902	872	13	15	448	1	1,349	66.12	1.77	98	5.53	19	64	75.28				
1903	Included with the G. I. P. railway	13	15	448	1	1,349	66.12	1.77	98	5.53	19	64	75.28				
Average	775	4	11	426	2	1,218	62.17	78	66	4.63	29	48	69.01				
1903 { 1st half	Included with the G. I. P. railway	...	...	...	...	...	...	...	...	...	...	...	...				
1903 { 2nd half	Included with the G. I. P. railway	...	...	...	...	...	...	...	...	...	...	...	...				
1899	852	2	189	276	2	1,321	58.78	60	7.18	1.78	46	25	69.05				
1900	832	2	200	231	2	1,267	58.37	56	7.55	1.91	63	25	69.27				
1901	1,524	8	542	341	3	2,413	78.70	94	13.65	3.06	44	42	97.21				
1902	1,441	4	494	378	2	2,319	75.99	1.29	12.14	4.33	78	30	94.78				
1903	1,523	2	400	408	2	2,340	82.53	83	9.90	4.26	37	40	93.65				
Average	1,235	3	365	327	2	1,932	70.91	84	10.08	3.07	54	34	85.78				
1903 { 1st half	808	1	194	198	1	1,190	44.24	41	4.86	1.97	22	25	51.95				
1903 { 2nd half	722	1	206	220	1	1,160	39.59	42	5.04	2.29	16	21	46.70				
1899	297	1	326	251	...	875	19.92	26	12.19	1.78	6	1	34.22				
1900	351	1	418	241	1	1,012	26.14	15	14.64	1.49	9	5	42.56				
1901	307	1	372	240	...	920	19.22	24	12.31	1.00	6	4	32.87				
1902	321	...	390	223	1	935	21.06	20	12.84	1.10	9	7	35.36				
1903	363	1	319	212	...	895	22.93	14	10.98	85	10	8	35.08				
Average	328	1	365	233	...	927	21.85	20	12.59	1.25	8	5	36.02				
1903 { 1st half	211	1	189	114	...	515	13.60	8	6.63	39	5	4	20.68				
1903 { 2nd half	152	...	130	98	...	380	9.33	6	4.45	47	5	4	14.40				

\* For Great Indian Peninsula railway and Indian

† Included with the Great Indian Peninsula railway



DIX 16.

portion of Appendix 44 in Report for 1902)

traffic.

17 and 20 of Report.)

Appendix 16.  
Goods traffic.

AVERAGE RATE CHARGED PER TON PER MILE IN PIES.					Average cost of carrying a ton of goods one mile in pies.	Average profit from carrying a ton of goods one mile in pies.	Average distance goods were carried.	Average load in a loaded goods vehicle per mile.	Average load in a goods vehicle per mile (including both loaded and empty).	AVERAGE NUMBER OF VEHICLES IN A GOODS TRAIN.		AVERAGE WEIGHT IN A GOODS TRAIN.			Percentage of freight upon capacity hauled.	Year.
General merchandise.	Military stores.	Coal and coke for the public and foreign railways.	Revenue stores including coal and materials for construction.	Total.						Freight vehicles.	Total including brake vans.	Freight.	Dead weight.	Total.		
						Miles.	Tons.	Tons.	No.	No.	Tons.	Tons.	Tons.			
6.95	126.76	5.48	2.45	6.72	4.92	1.49	69.09	5.84	3.52	18.21	19.85	64.16	207.52	271.68	23.64	1899.
7.05	132.78	5.50	2.41	6.33	4.62	1.66	77.36	6.04	3.67	21.24	22.15	77.95	233.55	311.50	24.16	1900.
8.12	131.41	3.85	2.45	7.09	4.76	2.31	68.85	5.30	3.24	21.06	21.86	68.24	230.41	298.65	22.17	1901.
8.28	135.25	3.96	2.45	7.46	5.31	2.17	68.57	5.51	3.47	19.17	20.10	66.59	209.70	276.29	24.84	1902.
7.82	130.25	4.29	2.45	7.86	5.50	2.23	75.70	6.16	3.65	23.12	24.03	84.67	206.87	291.54	25.10	1903.
7.64	131.29	4.22	2.44	6.99	5.02	1.97	71.91	5.77	3.51	20.56	21.60	72.32	217.61	289.93	23.98	Average.
7.93	130.26	4.69	2.45	6.99	5.77	1.25	...	5.92	4.48	14.43	15.43	64.40	182.99	247.39	30.88	1st half } 1903.
7.82	130.24	4.07	2.45	7.49	5.43	2.05	...	6.23	3.48	26.73	27.61	92.90	270.14	363.04	23.95	2nd half } 1903.
6.73	18.71	3.57	2.04	5.34	2.60	2.77	123.45	9.11	5.96	25.70	27.60	152.99	293.78	446.72	43.61	1899.
4.89	18.16	3.64	2.38	4.58	2.20	2.38	194.79	9.92	6.14	25.48	27.24	156.93	254.14	411.07	43.93	1900.
7.01	18.57	3.65	2.52	5.45	3.33	2.14	105.10	6.68	4.67	25.77	27.75	120.35	261.41	331.76	32.12	1901.
6.91	18.60	3.16	2.45	4.81	2.71	2.13	106.63	7.79	5.26	24.98	26.92	131.41	256.78	338.19	35.24	1902.
6.86	17.34	3.05	2.45	4.72	2.76	1.98	124.05	9.10	6.18	22.40	24.40	133.50	247.78	386.28	41.19	1903.
6.48	16.27	3.41	2.37	4.98	2.72	2.28	130.80	8.50	5.64	24.87	26.78	140.04	262.77	402.80	39.22	Average.
6.94	17.04	3.02	2.46	4.94	2.65	2.29	...	8.89	6.04	24.72	26.75	149.24	264.16	413.40	40.38	1st half } 1903.
6.89	16.23	3.08	2.46	4.63	2.68	1.64	...	9.36	6.38	20.12	22.08	127.93	231.68	359.59	42.16	2nd half } 1903.
8.60	15.60	2.83	3.01	7.76	3.49	4.28	140.66	7.23	5.33	38.92	39.72	207.59	310.58	518.17	44.09	1899.
8.11	19.83	2.76	2.56	7.34	3.80	3.54	141.86	7.56	4.98	40.15	41.07	199.55	330.87	530.42	40.78	1900.
7.87	15.46	2.87	2.90	7.18	2.99	4.24	146.68	8.24	6.31	39.75	40.60	250.75	327.45	578.20	50.70	1901.
8.72	19.71	2.83	2.56	7.96	3.44	4.51	133.60	8.19	6.45	38.12	38.86	245.05	319.67	565.72	49.78	1902.
8.51	14.92	2.89	2.66	7.96	3.49	4.47	157.76	8.37	6.44	41.07	41.81	264.30	339.29	603.59	48.89	1903.
8.36	17.30	2.85	2.74	7.64	3.44	4.21	144.13	7.92	5.90	39.60	40.41	233.45	325.57	559.22	46.84	Average.
8.69	15.91	2.94	2.51	7.97	3.15	4.82	...	8.70	6.82	41.15	41.96	272.59	339.60	613.09	51.30	1st half } 1903.
8.39	14.43	2.84	2.97	7.93	3.36	3.98	...	7.90	6.15	40.95	41.60	251.95	338.97	600.92	45.45	2nd half } 1903.
8.87	25.05	4.60	2.45	7.75	3.87	3.70	87.24	6.59	4.79	29.74	30.75	141.52	280.78	422.30	41.83	1899.
8.93	24.69	2.54	2.44	7.93	3.66	4.04	86.58	6.37	4.70	32.40	33.41	149.41	301.15	450.56	40.67	1900.
9.59	26.05	4.65	2.45	8.26	3.86	4.48	81.29	6.74	4.79	23.47	29.50	136.56	275.75	412.31	40.92	1901.
9.12	21.99	4.82	2.45	7.86	3.43	4.49	87.18	6.71	4.91	29.78	30.80	146.24	288.90	435.14	41.49	1902.
8.98	19.63	4.09	2.44	7.56	3.47	4.15	89.09	7.13	5.02	30.47	31.49	152.82	302.51	455.33	40.10	1903.
9.10	23.48	4.14	2.45	7.87	3.66	4.17	86.28	6.75	4.84	30.17	31.19	145.31	289.82	435.13	41.00	Average.
8.13	21.88	4.10	2.43	6.31	4.87	1.77	...	6.74	5.32	26.41	27.43	140.51	286.98	407.49	43.26	1st half } 1903.
9.34	18.10	4.08	2.45	8.25	2.87	5.45	...	7.37	4.87	33.98	33.99	160.44	324.60	464.94	38.53	2nd half } 1903.
6.06	20.60	3.48	1.86	4.64	1.60	3.03	204.74	10.38	7.14	27.81	28.72	198.67	244.29	412.94	51.06	1899.
6.20	17.71	3.46	1.94	4.59	1.71	2.87	209.32	10.72	7.12	27.51	28.42	196.11	244.60	440.72	50.18	1900.
5.85	18.03	3.44	1.85	4.38	1.65	2.74	206.30	10.95	7.45	27.26	28.15	203.12	252.18	455.30	51.69	1901.
5.78	20.73	3.63	1.89	4.03	1.73	2.73	194.62	9.87	6.68	29.82	30.28	195.95	277.88	473.63	46.33	1902.
5.57	19.06	3.19	1.84	4.16	1.46	2.72	208.18	11.22	7.38	31.76	32.73	234.33	304.07	538.40	51.27	1903.
5.88	19.24	3.44	1.88	4.36	1.68	2.82	204.62	10.63	7.15	28.73	29.66	205.64	264.60	470.22	50.11	Average.
5.67	16.33	3.21	1.92	4.23	1.45	2.80	...	11.27	7.49	30.31	31.25	238.07	290.22	517.19	51.58	1st half } 1903.
5.64	20.09	3.16	1.86	4.03	1.47	2.63	...	11.16	7.26	33.40	34.40	242.59	319.63	563.21	50.96	2nd half } 1903.
7.70	19.07	3.45	2.04	6.99	3.42	3.52	249.41	8.33	5.93	23.63	25.44	140.41	240.01	380.42	45.76	1899.
7.50	21.29	3.06	2.00	6.76	3.22	3.54	238.15	7.68	5.38	24.85	26.67	133.78	251.23	385.01	39.34	1900.
7.74	19.74	3.55	2.00	7.22	3.05	3.88	257.50	7.66	5.52	26.05	27.96	143.72	265.22	408.94	40.87	1901.
6.14	22.80	3.51	2.39	5.46	2.78	3.09	308.42	7.98	5.80	26.45	28.38	153.30	271.26	424.56	41.70	1902.
7.16	12.37	3.86	2.40	6.76	2.97	3.57	277.39	7.69	5.67	25.92	27.83	146.95	273.49	411.44	41.05	1903.
7.25	19.05	3.49	2.17	6.64	3.09	3.52	266.17	7.87	5.66	25.38	27.26	143.63	260.04	403.67	41.74	Average.
7.19	14.94	3.89	2.41	6.83	2.89	3.94	...	8.15	5.82	25.99	27.88	151.26	270.91	422.17	42.74	1st half } 1903.
7.10	11.03	3.82	2.38	6.64	3.44	2.94	...	7.04	5.44	25.82	27.75	140.39	274.90	416.29	33.99	2nd half } 1903.
6.95	11.09	3.03	2.63	6.29	3.62	2.70	157.73	7.50	4.67	25.81	27.61	120.59	273.70	394.29	19.01.	1901.
6.61	16.23	3.05	2.48	6.25	2.79	3.46	214.25	8.61	5.48	37.50	29.39	150.60	292.18	442.73	19.02.	1902.
6.35	16.32	2.92	2.63	5.72	1.76	9.97	...	...	...	...	...	...	...	...	19.03.	1903.
6.31	15.05	3.11	2.47	5.67	...	...	188.48	...	...	...	...	...	...	...	...	...
6.18	15.31	3.03	2.52	5.50	...	...	165.54	...	...	...	...	...	...	...	...	...
6.47	14.80	3.08	2.56	5.89	3.20	3.06	180.59	8.05	5.07	26.65	28.50	135.60	282.94	418	...	Average.
6.16	18.46	3.17	2.47	5.58	...	...	...	...	...	...	...	...	...	...	...	...
6.09	14.39	2.94	2.58	5.38	...	...	...	...	...	...	...	...	...	...	...	...
9.33	28.11	4.69	4.08	8.32	4.52	3.79	120.72	6.15	4.59	23.74	27.55	108.91	254.61	384.47	...	...
9.52	25.56	4.69	4.14	8.41	4.65	3.76	124.86	6.20	4.57	23.24	27.09	106.33	250.82	38.79	...	...
6.88	22.49	4.10	2.72	6.10	3.41	2.69	128.92	7.20	5.02	23.80	27.06	119.42	260.99	35.76	...	...
7.24	19.76	4.16	2.56	6.22	3.69	2.55	125.67	6.93	5.12	22.16	23.76	113.42	235.7	38.02	...	...
7.73	22.00	4.11	2.71	6.66	4.21	2.48	120.12	6.58	4.81	22.65	24.21	108.94	233.32	36.90	...	...
8.14	23.58	4.36	3.24	7.14	4.10	3.05	123.66	6.61	4.82	23.12	25.93	111.40	24.58	34.54	...	...
7.47	22.74	4.09	2.64	6.59	3.78	3.81	...	6.79	4.93	23.21	24.90	114.44	1.92	53.90	...	...
8.05	21.33	4.13	2.78	6.86	4.70	2.11	...	6.34	4.68	23.06	23.59	103.23	40.07	46.56	...	...
8.11	18.99	3.74	3.06	5.42	2.11	3.31	138.39	11.17	6.72	24.77	26.75	165.96	356.51	49.41	...	...
8.02	24.01	3.72	3.20	5.57	2.32	3.25	145.03	10.44	5.91	27.19	29.16	160.9	331.73	48.18	...	...
8.81	24.58	3.97	3.53	5.89	2.01	3.89	116.82	10.32	6.21	20.15	21.80	124.1	322.35	45.87	...	...
8.76	30.98	3.99	3.45	5.93	2.24	3.75	122.26	10.78	6.40	19.50	20.88	12.7	375.13	48.78	...	...
8.57	27.41	4.18	3.74	6.35	2.50	3.86	118.26	10.02	6.29	18.27	19.64	10	336.54	45.11	...	...
8.45	25.19	3.92	3.40	5.83	2.24	3.61	126.06	10.55	6.31	21.98	25.65	1.64	304.56	46.88	...	...
8.80	28.48	4.14	3.34	6.39	2.55</											



Appendix 16.  
Goods traffic.

DIX 16—contd.

portion of Appendix 44 in Report for 1902.)

traffic.

17 and 20 of Report.)

AVERAGE RATE CHARGED PER TON PER MILE IN PIES.					Average cost of carrying a ton of goods one mile in pies.	Average profit from carrying a ton of goods one mile in pies.	Average distance goods were carried.	Average load in a loaded goods vehicle per mile.	Average load in a goods vehicle per mile (including both loaded and empty).	AVERAGE NUMBER OF VEHICLES IN A GOODS TRAIN.		AVERAGE WEIGHT IN A GOODS TRAIN.			Percentage of freight upon capacity hauled.	Year.	
General merchandise.	Military stores.	Coal and coke for the public and foreign railways.	Revenue stores including coal and materials for construction.	Total.						Freight.	Total including brake-vans.	Freight.	Dead weight.	Total.			
							Miles.	Tons.	Tons.	No.	No.	Tons.	Tons.	Tons.			
								7.98	5.73	27.49	28.71	157.46	272.12	429.59	44.90	1899.	
								7.88	6.10	24.57	25.83	150.07	249.96	400.04	47.76	1900.	
								8.91	6.49	27.34	28.47	177.54	268.66	446.20	50.70	1901.	
								8.37	6.12	27.11	28.21	166.01	268.12	434.13	45.72	1902.	
								8.68	6.09	28.77	29.86	175.27	281.14	456.40	44.61	1903.	
								8.36	6.11	27.06	28.22	165.27	266.00	433.27	46.74	Average.	
								8.22	5.82	27.91	29.00	163.32	274.87	437.19	42.72	1st half } 1903	
								9.09	6.33	29.56	30.64	187.23	286.93	474.16	46.25		2nd half }
								6.79	4.90	14.98	16.58	72.75	186.97	259.72	39.37	1899.	
								6.18	4.82	14.48	15.94	68.48	180.79	249.27	38.62	1900.	
								6.94	4.92	15.12	16.46	74.44	183.92	258.36	39.12	1901.	
								6.68	4.70	14.59	15.97	68.50	182.13	250.63	36.12	1902.	
								5.78	4.20	13.97	15.22	58.65	165.97	224.61	33.34	1903.	
								6.47	4.71	14.63	16.03	68.56	179.96	248.52	37.31	Average.	
								†	†	†	†	†	†	†	†	1st half } 1903	
								†	†	†	†	†	†	†	†		2nd half }
5.56	18.30	3.26	2.47	5.24	2.98	2.27	173.74	7.89	5.65	25.91	27.19	146.57	261.89	407.96	44.40	1899.	
5.82	16.08	3.50	2.44	5.42	3.30	2.12	137.66	7.66	5.94	23.06	24.36	137.15	239.57	376.72	46.60	1900.	
5.28	15.85	3.66	2.44	5.02	2.64	2.87	199.57	8.75	6.37	25.65	26.81	163.29	256.94	420.23	49.77	1901.	
5.49	16.72	4.43	2.51	5.16	3.13	2.09	180.74	8.21	5.99	25.20	26.35	150.95	254.41	405.37	44.92	1902.	
5.25	18.85	3.87	2.57	5.01	2.59	2.47	216.96	8.46	5.96	26.74	27.85	150.32	265.89	424.72	43.86	1903.	
5.48	16.16	3.78	2.49	5.17	2.93	2.26	181.73	8.19	5.98	25.31	26.51	151.46	255.54	407.00	45.91	Average.	
5.02	15.88	3.97	2.58	5.28	†	†	†	†	†	†	†	†	†	†	†	1st half } 1903	
4.97	13.93	3.97	2.57	4.77	†	†	†	†	†	†	†	†	†	†	†		2nd half }
5.95	16.57	3.82	2.69	5.46	2.66	2.84	103.03	6.68	4.70	25.20	26.46	119.42	224.45	343.87	43.24	1899.	
6.20	15.11	3.68	2.61	5.62	2.97	2.65	105.53	6.54	4.79	23.65	24.98	118.56	218.00	331.56	43.05	1900.	
5.77	17.46	3.74	2.61	5.29	2.52	2.79	126.09	6.65	4.97	25.30	26.53	125.62	249.21	374.83	44.13	1901.	
5.67	15.87	3.33	2.80	5.06	2.74	2.34	106.23	6.57	4.90	25.26	26.39	123.63	259.19	382.82	40.45	1902.	
5.32	13.87	2.80	3.12	5.01	2.46	2.57	109.14	7.04	5.18	26.64	27.66	138.09	273.49	411.58	41.94	1903.	
6.82	15.74	3.52	2.77	5.29	2.67	2.64	110.00	6.70	4.91	25.21	26.40	124.06	244.87	368.93	42.36	Average.	
5.57	15.21	3.89	3.23	5.15	2.16	2.99	...	7.11	5.29	27.39	28.46	144.80	279.03	423.93	43.03	1st half } 1903	
5.43	9.89	3.07	3.03	3.03	2.85	2.03	...	6.94	5.05	25.73	26.70	129.83	266.76	396.85	40.55		2nd half }
5.07	18.40	3.60	2.45	4.23	3.34	0.99	109.38	10.16	6.63	16.31	17.73	103.27	212.81	321.08	43.32	1899.	
4.21	18.89	3.22	2.41	3.80	2.66	1.14	134.75	10.58	6.65	18.93	20.20	126.02	233.46	356.49	43.44	1900.	
8.74	22.61	4.14	1.61	3.67	4.93	-1.26	71.82	3.46	2.58	30.90	32.53	79.96	173.06	253.02	37.11	1899.	
8.64	23.29	3.73	1.67	4.20	5.16	-0.86	79.99	4.54	3.03	25.81	27.41	77.80	139.50	217.30	39.50	1900.	
6.55	18.22	4.18	2.53	5.49	5.49	0.05	127.44	5.74	3.80	22.66	24.13	86.02	132.40	218.42	40.05	1901.	
6.82	22.91	3.89	2.81	5.29	5.91	-0.52	87.08	5.16	3.35	20.61	21.76	69.09	120.17	189.26	36.06	1902.	
6.53	23.49	4.74	3.00	5.36	4.65	0.77	89.71	5.45	3.61	20.58	21.66	74.30	78.90	153.20	39.12	1903.	
7.46	22.10	4.15	2.32	4.80	5.23	...	91.21	4.87	3.27	24.11	25.50	77.43	126.81	206.24	38.37	Average.	
8.00	24.06	5.07	3.12	5.43	6.39	-0.98	...	4.62	3.03	17.25	18.14	53.26	102.94	155.20	34.21	1st half } 1903	
6.06	22.03	4.38	2.78	5.43	3.60	1.81	...	6.13	4.09	21.47	25.77	99.98	51.62	151.60	42.90		2nd half }
5.88	2.88	3.81	2.47	5.30	2.51	2.77	114.73	5.89	4.16	23.94	25.13	99.70	125.71	225.42	50.87	1899.	
6.20	24.23	4.10	2.62	5.64	2.86	2.75	109.33	5.12	3.52	24.57	25.81	86.98	129.65	216.64	43.38	1900.	
6.06	...	4.15	2.48	4.83	2.48	3.01	136.79	5.40	3.88	25.08	26.37	97.42	129.63	227.05	47.52	1901.	
6.63	7.13	4.23	2.45	5.85	2.69	3.13	119.63	5.04	3.61	24.64	25.95	89.21	129.63	218.84	43.85	1902.	
6.38	11.42	3.45	2.45	5.73	2.33	2.32	127.24	5.15	3.73	27.33	28.75	102.03	143.76	245.79	45.34	1903.	
6.22	9.13	3.95	2.49	5.47	2.55	2.80	121.54	5.32	3.78	25.11	26.40	95.07	131.68	226.75	46.19	Average.	
6.33	...	3.97	2.45	5.79	2.13	1.33	...	5.28	3.83	23.15	24.48	107.59	143.88	251.47	46.1	1st half } 1903	
6.37	11.42	3.47	2.46	5.66	2.35	3.31	...	5.03	3.64	26.51	28.03	96.47	143.66	240.13	44		2nd half }
57.67	...	29.79	3.80	45.69	...	...	21.49	...	...	...	...	...	...	...	2	50.23	Average.
59.94	16.46	27.67	4.44	39.14	...	...	19.98	...	...	...	...	...	...	...	...	...	1st half } 1903
24.83	...	12.31	4.19	23.22	...	...	35.88	...	...	...	...	...	...	...	...	...	
22.80	...	8.26	3.21	19.53	...	...	38.62	...	...	...	...	...	...	...	...	...	1899.
25.45	...	8.20	2.90	20.23	...	...	34.93	...	...	...	...	...	...	...	...	...	
38.14	18.46	17.24	4.71	29.56	...	...	30.06	...	...	...	...	...	...	...	...	...	1901.
16.99	...	9.61	3.00	19.18	...	...	...	...	...	...	...	...	...	...	...	...	1902.
31.91	...	6.88	3.08	26.90	...	...	...	...	...	...	...	...	...	...	...	...	1903.
12.74	35.77	5.45	4.26	12.23	62.0	6.02	55.10	3.54	2.42	25.35	25.90	61.49	124.51	182.48	39.43	Average.	
12.20	28.17	5.48	3.59	11.78	5.99	5.64	58.75	3.73	2.32	25.67	26.31	59.66	128.25	230.12	39.51	1st half } 1903	
11.60	28.25	5.96	2.00	10.86	6.42	4.46	56.98	3.54	2.55	26.44	26.97	67.84	126.00	206.69	35.34		2nd half }
11.90	28.41	4.64	1.92	11.14	6.75	4.40	49.79	3.40	2.27	27.44	27.98	62.18	129.17	...	...	1899.	
11.81	30.88	3.88	2.46	10.74	5.67	5.09	57.51	3.62	2.45	28.12	28.89	69.02	132.1	...	...	1900.	
11.95	29.29	4.98	2.85	11.85	6.21	5.12	55.63	3.57	2.40	26.60	27.21	63.97	127.60	60.51	75.13	32.99	1901.
11.43	24.00	3.58	2.77	11.03	5.80	5.43	...	3.51	2.36	29.07	30.04	68.68	81.92	103.41	21.70	1902.	
11.07	...	3.32	3.05	10.23	5.83	4.40	...	3.86	2.66	28.22	26.60	69.75	136.25	172.01	17.57	1903.	
																	Average.
																	1st half } 1903
																	2nd half }

railway and partly to the Madras railway from 1st January 1901.

which in the case of details are included with the

Appendix 16.  
Goods traffic.

APPEN  
(Appendices 16, 17, 32 and  
Goods  
(Referred to in paragraphs

NUMBER.		Railway including branches worked.	Year.	QUANTITY CARRIED IN THOUSANDS OF TONS.						EARNINGS IN THOUSANDS OF RUPEES.								
Main head.	Sub-head.			General mer- chandise.	Military stores.	Coal and coke for the public and foreign railways.	Revenue stores including coal and materials for construction.	Live-stock.	Total.	General mer- chandise.	Military stores.	Coal and coke for the public and foreign railways.	Revenue stores including coal and materials for construction.	Lives-tock.	Rents, miscel- laneous, etc.	Total.		
15	(a)	3' 3 1/2' gauge—contd. Barma ...	1899	773	1	...	313	5	1,092	38,13	15	...	3,45	1,17	10	43,00		
			1900	936	1	...	268	5	1,261	51,65	19	...	3,54	1,46	12	57,07		
			1901	1,026	1	...	363	5	1,475	56,16	27	...	4,82	1,34	14	62,73		
			1902	1,166	2	...	429	6	1,603	60,33	26	...	3,92	1,68	24	66,33		
			1903	1,132	2	...	715	11	1,860	53,51	28	...	4,38	3,55	19	66,86		
			Average	1,029	1	...	422	6	1,458	53,06	23	...	3,99	1,84	18	59,29		
			1903 { 1st half	683	1	...	361	6	1,031	34,19	16	...	2,14	1,84	10	38,43		
			{ 2nd half	469	1	...	354	5	829	24,82	12	...	2,19	1,71	9	28,43		
			1899	13	...	...	...	...	13	4	...	...	...	...	...	...	4	
			1900	12	...	...	...	...	12	4	...	...	...	...	...	...	4	
1901	13	...	...	...	...	13	5	...	...	...	...	...	...	5				
1902	8	...	...	2	...	10	2	...	1	...	...	...	...	3				
1903	13	...	...	2	...	15	4	...	...	...	...	...	...	4				
Average	12	...	1	...	...	13	4	...	...	...	...	...	...	4				
1903 { 1st half	7	...	1	...	...	8	2	...	...	...	...	...	...	2				
{ 2nd half	6	...	1	...	...	7	2	...	...	...	...	...	...	2				
16	(a)	Deoghur	1899	68	...	441	5	509	3,11	...	4,27	4	1	...	7,43			
			1900	77	...	412	4	494	3,58	...	4,07	4	1	...	7,70			
			1901	73	...	496	3	577	3,30	...	4,83	2	...	3	8,18			
			1902	64	...	451	5	510	3,24	...	4,07	2	...	...	7,33			
			1903	78	...	472	6	556	3,50	...	4,44	2	...	...	7,96			
			Average	71	...	452	6	529	3,35	...	4,33	3	...	1	7,72			
			1903 { 1st half	37	...	223	4	264	1,66	...	2,10	1	...	...	3,69			
			{ 2nd half	41	...	249	2	292	1,92	...	2,34	1	...	...	4,27			
			1899	619	...	...	129	...	747	35,25	...	43	1,77	2	16	37,63		
			1900	783	...	25	163	...	971	39,69	...	65	2,50	2	25	43,11		
1901	747	...	17	234	...	998	33,07	...	46	2,33	...	31	41,17					
1902	820	...	25	204	...	1,049	40,34	...	64	2,52	...	32	43,82					
1903	...	...	...	...	...	...	40,38	1	65	3,32	2	28	44,67					
Average	...	...	...	...	...	...	38,75	...	56	2,49	1	27	42,08					
1903 { 1st half	...	...	...	...	...	...	16,65	...	44	1,76	...	7	17,91					
{ 2nd half	...	...	...	...	...	...	24,73	1	21	1,57	...	22	26,76					
17	(a) & (b)	Dibru-Sadiya	1899	9	...	...	3	12	50	...	...	2	...	1	53			
			1900	99	...	2	199	1	301	5,63	1	8	96	4	6,76			
			1901	132	...	3	392	...	527	9,33	6	19	1,23	...	6	10,87		
			1902	149	...	5	432	1	587	11,99	5	23	1,25	9	5	12,76		
			1903	147	...	7	392	...	546	12,28	2	31	96	2	5	13,64		
			Average	107	...	3	284	1	395	7,77	3	16	88	3	4	8,91		
			1903 { 1st half	64	...	5	131	...	230	8,75	1	22	32	1	3	8,94		
			{ 2nd half	63	...	2	261	...	316	4,03	1	9	64	1	2	4,80		
			1899	292	...	3	45	...	340	14,10	...	2	44	1	5	14,62		
			1900	283	...	10	93	...	386	11,54	...	14	82	9	5	12,64		
1901	297	...	13	92	1	403	11,39	2	19	87	2	4	12,53					
1902	267	...	11	157	1	456	13,06	8	16	1,16	2	5	14,53					
1903	313	1	12	77	...	403	14,55	14	23	1,03	2	5	16,02					
Average	294	...	10	93	...	397	12,93	5	15	86	3	5	14,07					
1903 { 1st half	190	...	6	30	...	228	9,10	3	10	40	1	3	9,67					
{ 2nd half	123	...	6	47	...	177	5,46	11	13	63	1	2	6,35					
18	(c)	Hyderabad-Godavari Valley.	1899	2,283	7	15	329	6	2,640	1,34,01	90	72	6,11	1,40	31	1,93,45		
			1900	2,555	6	17	309	27	2,914	2,15,70	71	76	6,91	4,03	45	2,28,06		
			1901	2,011	8	15	348	16	2,393	1,92,34	49	63	6,64	2,52	29	2,02,91		
			1902	1,885	6	18	316	5	2,230	1,77,44	92	66	6,25	79	26	1,86,32		
			1903	1,642	9	20	299	6	1,976	1,43,59	1,36	68	4,97	87	25	1,51,72		
			Average	2,075	6	17	320	12	2,430	1,82,52	87	69	6,18	1,92	31	1,92,49		
			1903 { 1st half	977	5	11	161	3	1,157	85,54	76	40	2,61	39	15	89,85		
			{ 2nd half	665	4	9	138	3	819	69,05	60	28	2,36	46	10	61,87		
			1899	335	...	1	86	...	372	8,64	2	1	20	1	11	8,99		
			1900	316	...	1	37	...	354	8,07	2	1	26	...	14	8,50		
1901	383	...	1	38	...	373	8,68	4	1	27	...	8	9,08					
1902	370	...	1	60	1	432	9,29	8	1	35	...	3	9,76					
1903	359	2	1	57	...	419	9,33	12	1	35	...	1	9,83					
Average	342	1	1	46	...	390	8,80	6	1	29	...	7	9,23					
1903 { 1st half	226	2	1	27	...	256	5,73	10	1	19	...	2	6,05					
{ 2nd half	133	...	...	30	...	163	3,60	2	...	16	...	1	3,78					
19	(a) & (b)	Bikaner and ...	1899	8	...	...	1	4	...	1	...	2	...	...	35			
			1900	9	...	...	...	1	10	58	1	...	2	...	61			
			1901	15	1	...	...	1	16	1,02	6	...	1	...	1,10			
			1902	33	2	...	...	5	40	1,68	80	...	2	...	2,02			
			1903	74	1	1	80	...	156	2,37	18	...	2	...	2,67			
			Average	27	1	...	17	...	45	1,20	10	...	4	...	1	1,85		
			1903 { 1st half	35	...	1	40	...	78	1,20	6	1	6	...	1	1,34		
			{ 2nd half	39	...	...	40	...	80	1,17	7	1	6	...	1	1,33		
			7	(d) & (e)	Shoranur, Nilgiri.	1899	3	...	...	...	...	...	...	...	...	...	...	...
						1900	8	...	...	...	...	...	...	...	...	...	...	...
1901	15	1				...	...	...	16	1,02	6	...	1	...	1,10			
1902	33	2				...	...	5	40	1,68	80	...	2	...	2,02			
1903	74	1				1	80	...	156	2,37	18	...	2	...	2,67			
Average	27	1				...	17	...	45	1,20	10	...	4	...	1	1,85		
1903 { 1st half	35	...				1	40	...	78	1,20	6	1	6	...	1	1,34		
{ 2nd half	39	...				...	40	...	80	1,17	7	1	6	...	1	1,33		

1899-1903  
1901-1902  
1902-1903

1899-1903  
1901-1902  
1902-1903

\* Information  
† Included with the Eastern  
‡ Excluding the Cochin  
§ Difference in rate as compared with the previous year is due to the



Appendix 16.

Goods traffic.

APPENDIX

(Appendices 16, 17, 32 and 33)

Goods

(Referred to in paragraph 1)

NUMBER.	Main head.	Sub-head.	Railway including branches worked.	Year.	QUANTITY CARRIED IN THOUSANDS OF TONS.							EARNINGS IN THOUSANDS OF RUPEES.						
					General mer- chandise.	Military stores.	Coal and coke for the public and foreign railways.	Revenue stores including coal and materials for construction.	Live-stock.	Total.	General mer- chandise.	Military stores.	Coal and coke for the public and foreign railways.	Revenue stores including coal and materials for construction.	Live-stock.	Rents, miscel- laneous, etc.	Total.	
20	(a) to (e)	3' 3 3/4 gauge—concl'd.	South Indian	1899	877	...	27	614	1	1,519	39,99	3	33	1,28	6	24	41,99	
				1900	852	...	17	824	4	1,697	37,84	6	22	1,24	18	19	39,73	
				1901	1,065	1	22	591	4	1,683	45,57	19	27	1,33	16	22	47,74	
				1902	1,094	...	15	797	4	1,910	46,51	10	19	1,68	13	23	48,84	
				1903	1,294	...	19	2,199	4	3,516	53,24	4	30	3,06	21	33	56,18	
				Average	1,037	...	20	1,005	3	2,066	44,43	8	27	1,72	15	24	46,89	
				1903 { 1st half	678	...	7	1,066	2	1,753	29,69	2	14	1,41	9	16	28,51	
				1903 { 2nd half	616	...	12	1,133	2	1,763	25,55	2	16	1,05	12	17	27,67	
				1899	942	1	3	143	...	1,094	50,02	10	11	3,71	12	16	54,24	
				1900	841	1	2	150	2	996	51,41	13	12	3,87	13	23	55,89	
1901	701	2	2	161	1	967	44,20	19	13	3,72	12	22	49,58					
1902	860	3	4	147	2	1,016	51,25	42	21	3,96	16	26	56,26					
1903	925	2	7	154	1	1,089	53,62	80	33	3,50	21	22	58,18					
Average	874	2	4	152	1	1,033	50,10	23	18	3,75	15	22	54,63					
1903 { 1st half	509	1	2	68	1	591	29,75	14	12	1,68	10	12	31,91					
1903 { 2nd half	416	1	5	86	...	508	23,97	16	21	1,82	11	10	26,27					
1899	25	...	...	1	...	26	1,06	...	...	1	...	2	1,09					
1900	54	...	...	1	1	58	2,15	...	...	2	4	5	2,26					
1901	26	...	1	1	...	28	1,13	...	1	1	...	2	1,17					
1902	25	...	1	1	...	27	1,09	...	2	1	...	...	1,12					
1903	14	...	1	...	...	15	64	...	1	...	...	1	66					
Average	29	...	1	1	...	31	1,21	...	1	1	1	2	1,26					
1903 { 1st half	9	...	1	...	...	10	39	...	1	...	...	...	40					
1903 { 2nd half	5	...	...	...	...	5	25	...	...	...	...	...	26					
1899	114	...	...	4	...	118	3,40	...	...	2	...	1	3,43					
1900	59	...	...	5	...	64	1,73	...	...	3	...	1	1,77					
1901	70	...	...	4	...	74	1,89	...	...	4	...	...	1,93					
21	(a)	2' 6" gauge.	Barai Light	1899	56	...	...	...	...	57	1,32	...	...	...	...	...	1,32	
				1900	41	...	...	...	...	41	97	...	...	...	...	...	97	
				1901	54	...	...	...	...	54	1,37	...	...	...	...	1	1,38	
				1902	50	...	...	...	...	50	1,20	...	...	...	...	1	1,21	
				1903	45	...	...	...	...	45	1,05	...	...	...	...	...	1,05	
				Average	49	...	...	...	...	49	1,18	...	...	...	...	...	1,18	
				1903 { 1st half	24	...	...	...	...	24	58	...	...	...	...	...	58	
				1903 { 2nd half	21	...	...	...	...	21	47	...	...	...	...	...	47	
				1903	7	...	...	...	...	7	9	...	...	...	...	...	9	
				1903 { 1st half	...	...	...	...	...	...	...	...	...	...	...	...	...	
1903 { 2nd half	7	...	...	...	...	7	9	...	...	...	...	...	9					
1903	...	...	...	...	2	...	2	1	...	1	5	...	7					
1903 { 1st half	...	...	...	...	2	...	2	1	...	1	5	...	7					
1903 { 2nd half	...	...	...	...	2	...	2	1	...	1	5	...	7					
1899	39	...	1	1	...	41	1,58	...	7	1	...	1	1,67					
1900	48	...	1	1	...	50	1,62	...	2	1	6	3	1,74					
1901	27	...	...	2	...	29	98	...	1	2	...	...	1,01					
1902	19	...	...	...	...	19	70	...	...	...	...	1	71					
1903	19	...	...	...	...	19	68	1	...	...	...	...	69					
Average	30	...	...	1	...	31	1,11	...	2	1	1	1	1,16					
1903 { 1st half	11	...	...	...	...	11	44	...	...	...	...	...	44					
1903 { 2nd half	8	...	...	...	...	8	24	1	...	...	...	...	25					
1903	4	...	...	...	...	4	3	...	...	...	...	...	3					
1903 { 1st half	1	...	...	...	...	1	1	...	...	...	...	...	1					
1903 { 2nd half	3	...	...	...	...	3	2	...	...	...	...	...	2					
1901	12	2	...	3	...	17	23	...	...	1	...	5	29					
1902	22	...	...	2	...	24	32	...	...	...	...	1	33					
1903	20	...	...	2	...	22	27	...	...	1	...	...	28					
Average	18	1	...	2	...	21	27	...	...	1	...	2	30					
1903 { 1st half	13	...	...	1	...	14	18	...	...	1	...	...	19					
1903 { 2nd half	7	...	...	1	...	8	9	...	...	...	...	...	9					

† Opened for traffic from the 1st July 1903.  
 § Opened for traffic from the 9th November 1903.



DIX 16—contd.

(Portion of Appendix 44 in Report for 1902.)

traffic.

(17 and 20 of Report.)

AVERAGE RATE CHARGED PER TON PER MILE IN PIES.					Average cost of carrying a ton of goods one mile in pies.	Average profit from carrying a ton of goods one mile in pies.	Average distance goods were carried.	Average load in a loaded goods vehicle per mile.	Average load in a goods vehicle per mile (including both loaded and empty).	AVERAGE NUMBER OF VEHICLES IN A GOODS TRAIN.		AVERAGE WEIGHT IN A GOODS TRAIN.			Percentage of freight upon capacity hauled.	Year.
General merchandise.	Military stores.	Coal and coke for the public and foreign railways.	Revenue stores including coal and materials for construction.	Total.						Freight vehicles.	Total including brake-vans.	Freight.	Dead weight.	Total.		
							Miles.	Tons.	Tons.	No.	No.	Tons.	Tons.	Tons.		
9-48	22-35	5-46	2-50	8-74	4-85	3-89	60-73	3-92	2-90	18-83	19-49	54-70	110-31	165-01	46-35	1899.
9-48	22-36	5-67	2-44	8-69	4-51	4-15	62-19	4-29	3-23	18-47	19-52	61-33	105-59	170-92	50-12	1900.
8-83	25-02	6-38	2-48	8-23	4-01	4-26	65-89	4-71	3-59	19-47	20-06	69-93	112-34	182-27	55-72	1901.
8-09	26-49	5-67	2-48	7-49	3-93	3-60	65-22	4-94	3-73	19-70	20-34	73-48	114-11	187-57	56-35	1902.
5-11	22-53	6-43	2-44	7-19	3-36	3-57	42-46	5-04	3-78	21-06	21-74	79-56	120-20	199-76	54-19	1903.
3-60	24-19	5-02	2-46	8-07	4-13	5-08	59-30	4-56	3-45	19-62	20-23	67-80	113-31	181-11	52-69	Average.
9-04	21-39	5-87	2-49	7-27	3-16	4-11	...	5-12	3-99	20-99	21-66	81-61	119-69	201-30	56-36	1st half } 1903. 2nd half }
8-18	24-50	7-02	2-39	7-18	3-56	3-62	...	4-95	3-07	21-12	21-91	77-56	129-70	198-26	53-47	
6-91	19-63	3-94	2-60	6-28	4-39	1-84	152-70	4-84	3-55	22-64	23-96	80-41	122-89	203-30	53-06	1899.
6-98	19-78	3-81	2-66	6-30	4-36	1-94	170-98	4-54	3-26	22-25	23-61	72-52	122-58	195-11	48-42	1900.
7-92	15-42	4-11	2-61	6-89	5-00	1-89	140-10	4-33	3-28	22-01	23-81	72-21	121-36	193-57	47-80	1901.
7-69	9-60	3-59	2-61	6-76	4-65	2-14	156-57	4-36	3-32	21-97	23-32	73-02	124-23	197-25	47-86	1902.
7-64	16-07	3-41	2-62	6-24	4-39	2-47	149-48	4-37	3-17	21-84	23-22	75-90	124-12	200-02	49-33	1903.
7-43	16-10	3-77	2-62	6-60	4-56	2-06	153-97	4-49	3-38	22-14	23-46	74-81	123-02	197-85	49-29	Average.
7-56	15-83	3-64	2-67	6-68	4-12	2-81	...	4-57	3-61	22-11	23-46	79-91	124-70	204-51	51-37	1st half } 1903. 2nd half }
7-74	16-30	3-30	2-58	6-74	4-71	2-8	...	4-15	3-38	21-56	22-96	71-72	123-50	195-22	47-10	
15-98	32-20	...	2-72	15-69	6-56	8-76	51-19	3-79	2-17	25-12	25-52	55-56	128-15	183-72	30-53	1899.
15-01	33-15	9-24	3-02	14-97	5-15	9-37	52-11	4-80	2-57	26-65	26-90	68-71	131-55	200-27	35-53	1900.
14-29	32-00	2-74	3-53	13-60	6-52	7-21	57-91	4-75	2-69	25-37	25-37	68-53	129-46	197-99	37-08	1901.
14-34	34-36	2-72	5-38	13-89	6-29	7-59	57-41	4-85	2-74	24-13	24-13	67-53	124-70	192-23	34-32	1902.
17-91	34-67	2-72	2-72	16-36	8-26	8-27	51-03	3-34	2-12	21-42	21-42	45-50	120-95	166-45	26-34	1903.
15-51	33-36	3-48	3-47	14-91	6-56	8-22	53-93	4-31	2-47	24-54	24-67	61-17	126-96	188-13	32-77	Average.
17-64	33-59	2-72	3-72	16-41	7-89	8-67	...	3-47	2-14	23-09	23-09	49-43	126-22	175-64	26-42	1st half } 1903. 2nd half }
16-19	35-76	2-72	2-72	16-35	8-64	7-88	...	3-21	2-10	18-76	19-76	41-69	116-68	157-27	26-28	
10-91	...	...	5-14	10-89	7-59	3-24	51-51	...	...	...	...	...	...	...	...	1899.
12-42	...	27-87	5-25	12-18	12-39	-0-28	43-53	...	...	...	...	...	...	...	...	1900.
11-43	...	...	3-71	10-96	11-92	-1-72	45-52	5-27	4-35	14-75	15-25	1-49	167-39	168-38	45-52	1901.
20-38	35-71	...	4-85	20-35	...	...	22-27	...	...	...	...	...	...	...	...	1899.
20-72	34-01	...	...	20-72	...	...	21-97	...	...	...	...	...	...	...	...	1900.
21-99	31-32	11-91	4-85	21-96	...	...	22-00	...	...	...	...	...	...	...	...	1901.
21-18	41-57	10-45	...	21-11	...	...	22-00	...	...	...	...	...	...	...	...	1902.
20-53	41-89	19-80	8-16	20-56	...	...	22-00	12-44	9-66	11-00	12-00	106-26	55-00	161-26	64-40	1903.
20-95	36-80	14-05	5-95	20-94	...	...	22-05	...	...	...	...	...	...	...	...	Average.
20-97	38-24	...	9-16	20-90	...	...	...	...	...	...	...	...	...	...	...	1st half } 1903. 2nd half }
20-13	...	19-30	...	20-23	...	...	...	...	...	...	...	...	...	...	...	1903.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1st half } 1903. 2nd half }
48-36	77-64	40-81	10-42	15-20	...	...	50-68	...	...	...	...	...	...	...	...	1903.
45-36	77-64	40-81	10-42	13-20	...	...	50-66	...	...	...	...	...	...	...	...	1st half } 1903. 2nd half }
13-54	28-21	13-68	3-22	13-30	7-48	5-82	53-41	...	...	...	...	...	...	...	...	1899.
10-50	28-52	10-02	7-60	10-75	7-93	2-77	62-07	...	...	...	...	...	...	...	...	1900.
11-36	20-41	11-13	4-61	11-14	7-56	3-58	60-81	...	...	...	...	...	...	...	...	1901.
11-22	26-53	13-43	7-58	11-26	6-75	4-51	63-04	...	...	...	...	...	...	...	...	1902.
12-76	30-85	12-62	7-56	12-82	6-33	6-49	54-33	...	...	...	...	...	...	...	...	1903.
11-88	25-90	12-16	6-11	11-85	7-22	4-63	59-77	...	...	...	...	...	...	...	...	Average.
13-39	29-23	11-74	7-61	13-37	...	...	...	...	...	...	...	...	...	...	...	1st half } 1903. 2nd half }
11-78	31-40	15-17	7-61	11-84	...	...	...	...	...	...	...	...	...	...	...	1903.
7-00	...	...	2-45	6-76	20-88	-14-53	21-45	2-63	2-26	6-07	7-05	13-73	56-69	70-41	27-62	1903.
7-44	...	...	2-45	7-11	...	...	...	...	...	...	...	...	...	...	...	1st half } 1903. 2nd half }
6-75	...	...	2-45	6-44	...	...	...	...	...	...	...	...	...	...	...	1901. 1902. 1903.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Average.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1st half } 1903. 2nd half }

Appendix 16.

Goods traffic.

APPEN

[ Appendices 16, 17, 82 and

Goods

(Referred to in paragraphs

NUMBER.	Main head.	Sub-head.	Railway including branches worked.	Year.	QUANTITY CARRIED IN THOUSANDS OF TONS.							EARNINGS IN THOUSANDS OF RUPEES.								
					General merchandise.	Military stores.	Coal and coke for the public and foreign railways.	Revenue stores including coal and materials for construction.	Live-stock.	Total.	General merchandise.	Military stores.	Coal and coke for the public and foreign railways.	Revenue stores including coal and materials for construction.	Live-stock.	Rents, miscellaneous etc.	Total.			
2	(d)	Raipur-Dhantari	2' 6" gauge—concl'd.	1901							28						40			
				1902								21						29		
				1903									25						44	
				Average	†	†	†	†	†	†	†	†	26						38	
				1903 { 1st half 2nd half									21 11						27 17	
31	(e)	Banaghat-Krishnagar Light.	2' 6" gauge.	1899							1						1			
				1900								1						2		
				1901									1						1	
				1902									7						3	
				1903									9						9	
Average									2							3				
1903 { 1st half 2nd half									5 2							6 3				
33	(a)	Tarakshwar-Magra Light.	2' 6" gauge.	1899							6						6			
				1900								8						9		
				1901									8						11	
				1902									10						11	
				1903									16						13	
Average									9							10				
1903 { 1st half 2nd half									9 7							5 8				
34	(a)	Tezpur-Balipara Light	2' 6" gauge.	1899							9						9			
				1900								9						9		
				1901									7						50	
				1902									8						45	
				1903									6						44	
Average									7							48				
1903 { 1st half 2nd half									2 4							14 36				
36	(a)	Darjeeling-Himalayan	2' 0" gauge.	1899							26						6	4,27		
				1900								32						7	5,01	
				1901									29						9	4,35
				1902									27						10	4,62
				1903									26						9	5,70
Average									30							8	4,79			
1903 { 1st half 2nd half									20 16							4 6	3,08 2,62			
37	(a)	Howrah-Amta Light	2' 6" gauge.	1899							7							11		
				1900								9							15	
				1901									14							21
				1902									14							22
				1903									17							25
Average									12								19			
1903 { 1st half 2nd half									8 9								12 13			
38	(a)	Howrah-Sheakhala Light.	2' 6" gauge.	1899							3							4		
				1900								5							5	
				1901									4							6
				1902									6							7
				1903									7							9
Average									5								6			
1903 { 1st half 2nd half									3 4								4 5			
39	(a)	Jorhat	2' 6" gauge.	1899							21							83		
				1900								15							73	
				1901									12							67
				1902									12							63
				1903									12							63
Average									14								70			
1903 { 1st half 2nd half									5 7								28 37			
GRAND TOTAL OF ALL RAILWAYS.				1899	23,902	59	6,221	9,459	107	39,748	16,10,55	13,11	1,80,41	94,11	18,99	7,65	19,10,82			
				1900	25,548	58	7,809	9,820	181	42,896	16,90,35	18,78	2,11,71	92,82	18,70	8,66	20,36,52			
				1901	25,458	63	8,249	9,528	94	42,392	17,53,14	14,97	2,35,01	96,41	15,44	8,70	21,23,67			
				1902	25,840	100	8,034	11,487	76	45,537	17,40,72	21,67	2,26,75	1,14,93	15,13	9,95	21,28,41			
				1903	26,202	114	8,565	12,721	82	47,684	18,52,45	23,07	2,29,93	1,18,90	16,07	9,24	22,41,92			
Average					26,390	79	7,676	10,603	104	42,852	17,29,64	17,32	2,16,76	1,02,53	16,27	8,84	20,82,06			

\*Information † Included with the.



DIX 16.

portion of Appendix 44 in Report for 1902.]

traffic—concl'd.

17 and 20 of Report.)

AVERAGE RATE CHARGED PER TON PER MILE IN PIES.					Average cost of carrying a ton of goods one mile in pies.	Average profit from carrying a ton of goods one mile in pies.	Average distance goods were carried.	Average load in a loaded goods vehicle per mile.	Average load in a goods vehicle per mile (including both loaded and empty).	AVERAGE NUMBER OF VEHICLES IN A GOODS TRAIN			AVERAGE WEIGHT IN A GOODS TRAIN.			Percentage of freight upon capacity hauled.	Year.
General merchandise.	Military stores.	Coal and coke for the public and foreign railways.	Revenue stores including coal and materials for construction.	Total.						Freight vehicles.	Total including brake-vans.	Freight.	Dead weight.	Total.			
10-42	..	..	5-21	8-18	6-37	1-81	36-64	4-41	3-08	6-18	9-28	25-18	41-67	66-85	58-72	1901.	
9-74	..	..	3-37	6-95	6-46	0-53	43-96	4-86	3-28	9-24	10-75	30-32	41-71	72-03	60-22	1902.	
10-12	..	..	2-77	6-66	7-87	-1-15	57-16	7-39	5-00	7-78	9-06	38-82	55-73	94-55	68-69	1903.	
10-10	..	..	3-95	7-26	6-90	0-40	45-92	5-55	3-79	8-40	9-70	31-44	46-37	77-81	62-54	Average.	
10-64	..	..	2-45	8-12	..	..	..	5-93	4-00	10-01	12-21	40-02	51-67	91-69	68-61	1st half } 1903.	
9-30	..	..	2-33	5-28	6-47	-1-63	..	7-34	5-47	5-79	6-37	31-64	37-21	68-65	90-71	2nd half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1899.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1900.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1901.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1902.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Average.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1st half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2nd half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1899.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1900.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1901.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1902.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Average.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1st half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2nd half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1899.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1900.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1901.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1902.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Average.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1st half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2nd half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1899.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1900.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1901.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1902.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Average.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1st half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2nd half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1899.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1900.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1901.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1902.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Average.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1st half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2nd half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1899.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1900.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1901.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1902.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Average.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1st half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2nd half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1899.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1900.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1901.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1902.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Average.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1st half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2nd half } 1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1899.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1900.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1901.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1902.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1903.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Average.	

not available.

Appendix 17.  
Principal commodities carried.

Principal commodities carried by railways and the  
(Referred to in

Main head.	Sub-head.	Railway including branches* worked.	I.		II.		2.					
			Apparel including drapery, haberdashery, millinery, uniforms, accoutrements, boots and shoes.		Coal and coke carried for the public and foreign railways.		1. Raw.		(a) Twist and yarn, European.		(b) Twist and yarn, Indian.	
			Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.
		<b>5' 6" gauge.</b>	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
1	...	Bengal Central . . . . .	25	241	24,678	27,947	128	773	516	1,374	3	16
2	(a), (b) & (d)	Bengal-Nagpur . . . . .	335	7,782	1,176,814	17,41,089	14,438	1,95,637	1,140	8,971	14,409	1,72,727
3	(a), (c) to (f), (m) & (n).	Bombay, Baroda and Central India . . . . .	545	13,141	37,047	1,73,896	168,828	18,71,123	278	5,441	12,406	1,75,638
4	...	Eastern Bengal State . . . . .	1,493	19,992	339,029	3,57,848	1,270	8,142	2,635	22,008	4,323	26,202
5	...	East Indian . . . . .	3,164	95,410	5,387,981	1,71,53,327	44,791	7,34,004	1,208	33,403	20,321	1,59,636
6	...	Great Indian Peninsula . . . . .	1,284	52,009	155,070	3,84,718	351,504	64,47,784	8,789	1,76,293	15,189	1,73,789
7	(a) to (c)	Madras . . . . .	233	6,327	302,726	9,89,762	38,347	4,23,603	4,195	45,326	13,048	1,10,281
8	(a) & (b)	Nizam's Guaranteed State . . . . .	76	1,517	318,054	10,98,447	4,149	31,307	1,363	18,329	1,709	24,505
9	...	North Western State . . . . .	3,056	93,824	64,668	1,95,041	92,845	13,57,134	1,786	41,574	6,240	93,381
10	...	Oudh and Rohilkhand State . . . . .	1,054	11,421	43,045	1,73,968	6,418	16,875	2,951	23,457	9,215	69,621
		<b>3' 3 1/2" gauge.</b>										
11	...	Assam-Bengal . . . . .	260	3,524	16,106	40,363	1,165	6,704	600	3,072	112	1,044
12	...	Bengal and North-Western . . . . .	825	10,124	60,278	1,24,933	1,033	11,506	675	8,222	4,228	43,916
13	...	Bengal-Dooars . . . . .	53	252	12,592	23,533	...	...	...	...	54	227
14	...	Bhavnagar-Gondal-Janagad-Forbandar . . . . .	394	4,132	2,742	4,572	32,542	1,70,254	29	207	1,133	5,690
15	...	Burma . . . . .	451	8,167	23	34	1,614	12,956	4,384	81,325	325	3,949
16	...	Deoghur . . . . .	...	...	1,615	440	...	...	...	...	40	12
17	...	Dibru-Sadiya . . . . .	...	...	471,627	4,43,068	...	...	...	...	107	1,414
18	(c)	Hyderabad-Godavari Valley . . . . .	43	1,426	6,597	30,853	23,879	3,06,357	271	5,106	691	15,292
19	...	Jodhpur-Bikaner . . . . .	130	1,384	12,341	23,385	16,357	63,791	27	177	568	3,725
7	(d) & (e)	Madras . . . . .	29	307	507	2,670	55	580	36	304	202	1,103
3	(b) & (g) to (l)	Rajputana-Malwa . . . . .	736	21,040	19,772	69,488	80,551	12,70,890	165	1,753	12,611	3,29,727
19	(a) & (h)	Rohilkund and Kumaon . . . . .	358	3,777	878	753	77	797	34	164	1,420	6,574
20	...	South Indian . . . . .	191	3,619	19,256	20,449	28,249	1,02,215	2,576	20,912	10,608	87,257
21	...	Southern Mahratta . . . . .	249	3,610	7,134	32,728	114,086	5,31,450	2,312	29,340	10,711	1,06,244
22	...	Udaipur-Chitor . . . . .	9	91	...	...	716	2,966	3	18	26	182
		<b>2' 6" gauge.</b>										
24	...	Barsi Light . . . . .	3	6	1	2	10,496	28,343	66	227	196	440
25	...	Bukhtiarpore-Bebar Light . . . . .	...	...	...	...	...	...	...	...	...	...
30	...	Morvi . . . . .	21	141	16	69	3,206	22,740	4	13	73	291
2	(e)	Parlakimedi Light . . . . .	...	...	...	...	...	...	...	...	101	76
39	(e)	Powsyan Light . . . . .	...	...	...	...	...	...	...	...	100	185
31	...	Ransghat Krishnagar Light . . . . .	...	...	...	...	...	...	...	...	...	...
33	...	Terakeshwar-Magra . . . . .	...	...	110	85	...	...	...	...	...	...
34	...	Tezpur-Balipara . . . . .	...	...	3,082	6,035	...	...	...	...	4	33
28	...	Kalka-Simla . . . . .	1	20	44	655	...	...	...	...	...	...
		<b>2' 0" gauge.</b>										
36	...	Darjeeling-Himalayan . . . . .	191	5,985	1,591	15,520	2	68	4	93	104	2,861
37	...	Howrah-Amta . . . . .	...	...	...	...	...	...	...	...	...	...
38	...	Howrah-Sheakhala . . . . .	...	...	...	...	...	...	...	...	...	...
39	...	Jorhat . . . . .	...	...	...	...	...	...	...	...	...	...
		<b>TOTAL 1903</b>	16,108	3,88,159	8,663,009	2,30,47,388	1,045,925	1,57,23,689	38,146	5,35,999	140,723	16,46,036
		<b>TOTAL 1902</b>	15,358	3,52,383	8,028,500	2,26,76,009	914,004	1,35,69,180	38,141	5,41,163	139,444	16,07,701
		<b>INCREASE</b>	750	15,776	634,509	3,71,377	131,921	21,54,509	...	...	1,279	38,335
		<b>DECREASE</b>	...	...	...	...	...	...	1,995	6,169	...	...

\* Includes particulars relating to branches worked on different gauges to the main line in

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in Report for 1902.)  
earnings therefrom during the calendar year 1903.  
(paragraph 21 of the Report.)

III.								IV.		V.								NUMBR.	
COTTON.								Chemicals, excepting saltpetre.		DRUGS.									
MANUFACTURED.										1. Intoxicating, other than opium.		2. NON-INTOXICATING.				TOTAL.		Main head.	
(b) Piece-goods, European.		(d) Piece-goods, Indian.		(e) Others.		TOTAL.						(a) Medicinal preparations.		(b) Others.		TOTAL.			
Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.		
Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.		
1,910	5,499	12	72	...	...	2,499	7,723	2	13	2	23	35	494	7	53	45	590	1	
5,145	54,803	4,109	60,643	...	...	39,330	4,82,676	232	3,345	94	1,079	...	...	861	9,847	925	10,725	2	
6,086	1,32,523	25,188	4,45,164	537	12,084	213,373	26,41,973	508	6,986	27	595	85	1,690	2,454	41,512	2,569	43,797	3	
29,123	2,80,674	1,161	10,924	...	...	37,515	3,47,950	607	7,196	124	2,455	...	...	792	12,640	916	15,105	4	
68,331	16,32,781	7,532	92,594	2,416	56,826	134,599	27,39,844	2,784	54,054	217	3,342	858	26,405	2,350	30,979	3,405	60,717	5	
30,551	8,82,131	12,038	2,36,628	1,226	36,603	419,976	99,52,427	1,521	40,569	115	3,368	234	8,971	3,000	79,957	3,409	92,296	6	
9,348	1,11,424	7,332	71,811	225	2,174	71,393	7,64,914	73	1,329	13	153	248	7,326	2,305	25,933	2,566	33,412	7	
2,429	36,066	875	12,276	52	731	10,637	1,23,205	110	1,945	14	249	89	1,825	454	4,339	557	6,404	8	
19,053	5,39,534	26,178	5,43,156	1,029	20,214	147,131	25,92,993	3,506	61,601	548	10,167	809	10,175	9,974	1,38,271	9,929	1,56,613	9	
9,707	70,646	5,653	49,313	387	3,105	34,311	2,72,047	246	2,359	217	5,100	157	1,452	2,187	11,889	1,661	18,441	10	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2,376	16,304	167	2,084	19	248	4,529	31,416	207	1,231	3	46	100	1,221	60	495	163	1,762	11	
19,295	1,78,690	5,460	44,845	678	4,134	31,389	2,91,284	1,029	5,728	279	3,675	7	123	10,478	49,997	10,761	53,795	12	
683	2,916	62	275	27	99	826	3,547	14	67	...	...	...	...	285	1,540	283	1,540	13	
973	7,236	1,603	10,378	5	35	35,287	1,94,301	31	396	19	230	62	605	67	482	148	1,367	14	
4,173	94,160	390	6,398	...	...	11,916	1,69,776	153	3,608	...	...	57	1,421	224	2,929	291	4,350	15	
220	67	5	2	25	7	290	89	...	...	...	...	...	...	...	...	...	...	...	16
...	...	...	...	...	...	107	1,414	...	...	...	...	128	1,977	...	...	128	1,977	17	
663	11,203	953	14,549	46	485	26,693	3,53,001	9	204	6	145	18	351	23	294	47	820	8	
896	7,811	2,615	14,950	20	259	20,703	90,513	26	266	11	225	37	546	352	2,778	400	3,549	18	
149	843	399	1,280	4	34	743	4,234	2	42	...	...	14	110	416	4,471	430	4,541	7	
9,371	1,93,248	25,523	6,43,306	588	19,779	137,509	24,67,702	273	6,963	95	2,225	53	1,203	1,940	40,293	2,068	49,723	3	
425	2,451	1,912	12,217	136	1,007	4,004	23,120	67	510	66	650	10	124	1,404	10,812	1,480	11,616	19	
9,099	1,28,920	4,307	42,919	394	2,696	55,231	4,59,919	79	1,910	137	1,292	395	5,148	2,170	17,524	2,693	23,964	20	
4,554	66,762	4,751	68,391	535	7,932	136,949	8,02,128	728	9,938	39	849	252	3,457	425	4,955	716	9,162	21	
34	265	592	4,592	1	8	1,371	8,031	...	...	3	45	8	41	34	250	45	336	22	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
127	638	91	240	8	29	11,044	29,917	9	29	...	...	3	13	35	98	38	111	24	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	21	235	1,103	8	57	3,590	24,225	13	117	13	43	20	223	19	111	63	377	25	
8	4	21	20	...	...	130	100	3	3	...	...	...	...	2	3	2	3	3	2
...	...	...	...	...	...	100	185	...	...	...	...	...	...	...	...	...	...	...	19
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31
89	231	...	...	...	...	89	234	...	...	...	...	...	...	...	...	...	...	...	33
...	...	...	...	...	...	4	33	...	...	...	...	9	64	...	...	9	64	34	34
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	35
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39
224,127	44,58,981	139,661	29,89,720	8,348	1,69,746	1,594,025	4,49,70,871	12,510	2,13,547	2,010	36,009	3,249	76,215	40,893	4,93,165	45,642	6,05,459	...	
231,172	43,24,249	136,861	23,43,676	6,747	1,41,857	1,455,809	4,25,27,621	10,937	1,89,151	1,937	34,364	2,517	57,789	39,119	5,13,799	43,573	6,05,922	...	
2,855	1,39,433	3,300	66,044	1,596	27,069	1,39,056	23,93,247	1,893	23,436	78	1,655	732	16,516	2,294	...	3,069	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20,634	...	493	...

cases in which separate statistics have not been maintained.

Appendix 17.  
Principal commodities carried.

APPEN

(Appendices 18 and 19

Principal commodities carried by railways and the

(Referred to in paragraph 21

NUMBER.		Railway including branches* worked.	VI DYES AND TANS.															
Main head.	Sub-head.		(1) Alizarine and aniline dyes.		(2) Cutch.		(3) Indigo.		(4) Myrabolams.		(5) Tanning barks.		(6) Turmeric.		(7) Others.		Total.	
			Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.
		Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	
1	...	5' 6" gauge.																
1	...	Bengal-Central . . .	...	...	...	2	...	...	...	...	5	26	513	2,040	5	54	523	2,122
2	(a), (b) & (d)	Bengal-Nagpur . . .	...	...	...	...	...	...	29,565	1,98,283	...	...	4,737	39,261	2,345	12,243	30,547	2,49,787
3	(a) (c) to (f) & (m) & (n)	Bombay, Baroda and Central India.	947	22,874	142	1,232	37	689	108	1,395	1,053	12,713	3,107	61,089	2,704	52,485	8,098	1,53,377
4	...	Eastern Bengal State . . .	...	...	370	2,997	109	1,186	...	...	...	...	2,094	12,287	271	3,422	2,814	10,842
5	...	East Indian . . .	307	5,787	1,413	15,971	2,351	59,615	4,949	34,987	3,577	10,091	5,416	95,684	3,953	43,141	21,068	2,65,466
6	...	Great Indian Peninsula	1,884	69,923	979	16,301	266	7,503	34,254	2,87,214	10,843	53,469	11,048	1,55,011	2,626	40,468	61,900	6,32,000
7	(a) to (c)	Madras . . .	410	5,873	22	132	1,843	25,253	2,075	11,610	16,196	1,24,059	9,842	62,547	799	8,383	32,689	2,37,635
8	(a) & (b)	Nizam's Guaranteed State.	230	2,783	26	185	8	112	246	1,127	2,933	16,679	203	2,293	130	1,516	3,666	24,845
9	...	North Western State . . .	549	18,787	33	263	1,467	34,168	310	3,916	820	2,024	4,092	59,797	7,203	1,02,345	14,493	2,21,225
10	...	Oudh and Rohilkhand State.	108	1,074	405	3,161	94	1,284	258	1,630	585	2,941	1,773	20,449	729	4,604	3,052	35,303
		3' 3 1/2" gauge.																
11	...	Assam-Bengal . . .	...	...	41	164	...	...	3	10	...	...	24	165	18	237	84	556
12	...	Bengal and North-Western.	71	946	1,412	9,030	1,674	14,061	93	609	332	1,979	3,320	20,300	1,065	6,644	7,667	62,620
13	...	Bengal-Dooars . . .	...	...	...	...	...	...	...	...	...	...	4	15	10	47	14	62
14	...	Bhavnagar-Gondal-Ju-nagad Porbandar.	117	829	10	49	3	23	116	479	1	5	267	1,335	325	1,902	839	4,623
15	...	Burma . . .	...	...	5,463	58,568	...	3	62	614	163	968	1,178	8,416	42	551	6,928	69,340
16	...	Deoghur . . .	...	...	...	...	...	...	...	...	...	...	20	6	...	...	20	6
17	...	Dibru-Sadiya . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	(c)	Hyderabad-Godavari Valley.	15	274	67	1,098	83	1,566	55	102	297	578	292	3,240	64	721	883	7,578
19	...	Jodhpur-Bikaner . . .	28	115	...	16	68	1,342	8	26	313	3,765	230	1,654	296	2,107	902	8,018
20	(d) & (e)	Madras . . .	...	...	...	...	...	...	4	12	0	32	29	82	21	59	60	185
21	(b) & (g) to (i)	Rajputana-Malwa . . .	798	29,108	224	2,839	501	5,109	325	3,416	2,528	16,166	3,018	48,043	2,541	63,266	9,921	1,08,017
22	(a) & (b)	Rohilkhand and Kumaon.	10	104	463	2,831	10	62	21	148	641	2,236	471	2,506	71	505	1,687	7,892
23	...	South India . . .	608	7,751	235	1,663	411	3,639	517	3,049	5,150	40,135	2,685	20,172	1,677	13,931	11,083	90,340
24	...	Southern Mahratta . . .	228	3,176	238	1,966	202	2,001	2,960	12,426	12,650	33,098	9,703	58,633	604	5,274	26,591	1,16,564
25	...	Udaipur-Chitor . . .	10	65	2	15	6	52	6	24	1	3	74	534	88	304	187	996
		2' 6" gauge.																
26	...	Barai Light . . .	7	28	31	71	1	2	4	10	...	1	163	419	33	95	239	654
27	...	Bukhtiarpore-Bihar Light.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28	...	Morvi . . .	2	10	1	1	1	10	3	8	...	...	8	36	69	295	84	360
29	(c)	Parlakimedi Light . . .	...	...	...	...	...	...	49	41	44	37	39	27	...	...	125	105
30	(e)	Powayan Light . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
31	...	Ranaghat-Krishnagar Light	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32	...	Tarakshwar-Magra . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
33	...	Tezpur-Balipara . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34	...	Kalka-Simla . . .	1	17	...	...	...	...	...	...	...	...	...	...	...	...	1	17
		2' 0" gauge.																
35	...	Darjeeling-Himalayan . . .	...	...	2	68	...	3	...	...	...	...	2	57	8	215	12	343
36	...	Howrah-Amta . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
37	...	Howrah-Sheakhala . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
38	...	Jorhat . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		TOTAL 1903 . . .	6,320	1,09,492	11,578	1,20,168	9,095	1,57,792	69,993	5,61,496	60,017	3,21,163	69,780	6,65,928	27,444	3,64,854	248,197	23,80,923
		TOTAL 1902 . . .	4,681	1,16,436	7,138	75,177	9,739	1,67,003	81,730	6,12,760	63,638	3,53,731	77,606	2,71,778	28,692	3,88,132	278,134	26,89,079
		INCREASE . . .	1,639	53,044	4,440	45,011	...	...	...	...	...	...	...	...	...	...	...	...
		DECREASE . . .	...	...	...	...	664	9,271	11,737	51,264	8,591	32,548	13,876	1,95,860	1,168	21,278	39,937	2,02,166

\* Includes particulars relating to branches worked on different gauges to the main line

DIX 17—continued.

in Report for 1902.)

earnings therefrom during the calendar year 1903.  
of the Report.)

Appendix 17.  
Principal commodities carried.

VII.						VIII.		IX.								NUMBER.	
FOODS.						Fruits and vegetables, fresh.		GRAIN AND PULSES.									
(1) Oil-cake.		(2) Hay, straw and grass.		Total.		Fruits and vegetables, fresh.		(1) Gram and pulses.		(2) Jawar and Bajra.		(3) Rice in the husk.		(4) Rice not in the husk.		Main-head.	
Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.		
Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.		
1,692	3,219	43	108	1,735	3,327	5,842	15,941	4,090	9,305	...	...	2,598	4,902	4,766	12,532	1	
3,953	18,189	1,158	7,005	5,111	25,194	7,640	56,285	37,336	1,86,321	...	...	39,779	1,31,343	129,038	9,30,394	2	
11,766	87,064	44,765	2,37,692	56,551	3,24,756	22,952	1,10,509	45,550	2,68,395	20,239	94,377	6,162	27,696	29,735	2,40,769	3	
5,409	11,549	21,196	81,525	26,605	48,074	7,917	41,134	55,200	1,97,836	...	...	86,349	3,15,666	100,874	3,00,466	4	
33,260	1,57,023	16,191	60,253	49,441	2,17,276	11,481	1,30,757	266,778	18,77,969	13,827	53,394	26,769	76,379	189,407	7,51,990	5	
12,311	64,478	42,510	4,26,074	54,821	4,90,562	26,283	2,37,464	194,185	24,15,518	169,768	17,74,427	1,407	5,817	91,205	8,94,365	6	
6,051	34,316	1,618	5,045	9,669	39,361	12,869	81,843	66,348	4,09,368	31,821	86,558	84,863	3,58,257	211,845	6,66,551	7	
440	2,888	1,609	3,805	2,049	6,493	2,790	24,280	12,767	63,235	44,781	1,88,169	2,619	15,246	60,402	5,07,904	8	
9,649	40,573	39,616	2,25,935	49,464	2,66,508	20,837	1,53,800	184,205	11,93,224	116,018	5,81,969	19,957	47,838	125,673	7,53,394	9	
4,023	17,986	5,299	33,690	10,027	51,676	9,965	45,516	89,002	3,14,493	15,994	59,870	1,941	7,346	41,735	1,78,774	10	
709	3,064	634	2,323	1,343	5,387	1,322	8,021	2,834	17,241	2	11	1,093	3,391	41,691	1,09,947	11	
7,028	23,863	3,691	30,078	10,919	53,946	6,033	21,954	108,723	4,33,749	1,383	6,844	44,594	1,33,613	194,493	8,49,316	12	
23	89	200	671	223	760	61	268	4,916	11,614	...	...	731	997	8,679	13,953	13	
499	3,090	74	166	573	3,256	5,219	22,305	3,544	9,791	30,215	1,09,766	135	351	8,983	32,929	14	
1,774	7,603	302	1,577	2,076	9,180	26,581	1,94,373	16,848	1,14,414	363	1,603	484,416	22,17,090	63,935	3,37,050	15	
15	5	...	...	15	5	...	...	210	58	...	...	25	7	55	16	16	
...	...	...	...	...	...	...	...	1,563	12,590	...	...	...	...	15,499	1,31,034	17	
1,390	5,755	95	387	1,485	6,142	106	1,290	6,363	51,777	3,048	8,640	97	293	12,192	61,421	18	
86	198	1,403	10,422	1,489	10,618	1,166	6,380	7,891	46,023	43,083	2,38,410	2,213	6,932	30,966	1,28,996	19	
53	427	12	139	64	566	597	1,863	1,740	4,306	134	208	4,631	7,997	29,413	55,160	20	
5,931	21,955	6,033	84,710	11,964	1,03,665	22,969	1,54,915	79,933	7,20,946	61,319	4,47,837	2,136	13,078	58,071	4,22,994	21	
540	1,885	1,305	9,399	2,345	11,263	4,261	31,901	32,359	81,623	3,016	8,982	2,815	6,735	8,267	16,442	22	
37,448	1,39,875	394	1,451	37,842	1,41,326	34,380	1,83,464	55,440	2,80,854	6,867	50,393	93,192	2,27,676	136,063	4,33,889	23	
9,341	43,304	3,577	38,716	12,918	82,020	9,964	59,269	53,147	3,00,681	41,049	1,76,892	15,102	64,013	64,696	4,08,845	24	
2	5	...	...	2	5	91	536	833	3,066	136	264	...	2	843	3,870	25	
3	8	61	136	64	144	32	84	1,635	3,502	7,732	16,423	54	116	1,200	2,769	26	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27
3	10	101	309	104	318	123	555	371	919	2,355	6,028	46	137	499	1,392	30	
43	36	8	7	51	43	50	43	690	555	...	...	215	146	547	496	31	
...	...	...	...	...	...	...	...	371	615	...	...	...	...	...	...	32	
1,243	1,892	...	...	1,243	1,892	1,561	1,320	25	25	...	...	2,563	1,923	82	111	33	
322	1,527	...	...	322	1,527	...	...	272	1,308	...	...	...	...	407	1,840	34	
...	...	...	...	...	...	...	...	9	185	...	...	...	...	5	66	35	
1	14	23	696	23	710	117	2,495	993	12,116	...	...	16	163	14,303	1,71,738	36	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39
156,981	6,91,873	193,525	12,12,117	350,506	19,03,980	243,117	15,98,279	1,358,569	91,46,453	634,429	39,11,068	925,388	36,76,991	1,675,849	84,41,396	...	
143,295	6,04,457	186,639	9,27,941	330,024	15,32,396	230,615	15,72,360	1,308,947	88,72,543	691,668	53,86,930	1,068,693	43,77,028	1,468,948	81,44,993	...	
13,690	87,416	6,886	2,94,276	20,482	8,71,692	12,302	23,019	47,642	2,73,909	...	...	...	...	166,901	2,96,403	...	
...	...	...	...	...	...	...	...	...	...	267,239	13,54,963	133,205	7,00,047	...	...	...	

in cases in which separate statistics have not been maintained.

Appendix 17.

Principal commodities carried.

APPEN

(Appendices 18 and 19

Principal commodities carried by railways and the

(Referred to in para

Number.		Railway including branches* worked.	IX.								Hides	
Main-head.	Sub-head.		GRAIN AND PULSE—concd.								(2) Dressed or tanned.	
			(5) Wheat.		(6) Wheat flour.		(7) Other.		TOTAL.			
			Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.
Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.			
<b>5' 6" gauge.</b>												
1	...	Bengal Central	3	4	325	1,004	...	...	11,770	27,647	...	...
2	(a), (b) & (d)	Bengal-Nagpur	45,261	3,69,313	3,799	20,744	12,533	83,261	268,246	16,31,366	...	...
3	(a) & (c) to (f) (m) & (n)	Bombay, Baroda and Central India	75,977	5,11,103	6,450	49,773	42,448	3,70,241	226,551	15,62,313	399	6,930
4	...	Eastern Bengal State	2,193	9,359	6,430	68,890	1,675	4,878	253,720	8,97,085	...	...
5	...	East Indian	436,464	28,05,799	30,499	1,97,496	68,410	3,51,086	1,032,231	61,04,002	867	10,867
6	...	Great Indian Peninsula	253,813	29,80,141	16,953	1,76,002	14,798	1,65,043	760,129	32,00,343	974	10,125
7	(a) to (c)	Madras	3,029	13,775	2,937	11,854	31,908	1,79,724	453,148	20,16,087	2,023	25,559
8	(a) & (b)	Nizam's Guaranteed State	4,900	24,443	2,433	13,495	643	1,502	129,105	8,14,000	6	82
9	...	North Western State	977,617	1,33,61,733	47,965	2,29,343	31,995	1,71,542	1,602,620	1,63,29,063	140	1,606
10	...	Oudh and Rohilkhand State	287,624	13,44,311	10,331	36,674	40,392	1,65,567	467,019	31,07,084	17	97
<b>3' 3 1/2" gauge.</b>												
11	...	Assam-Bengal	75	579	1,130	6,739	78	394	47,098	1,39,272	...	...
12	...	Bengal and North-Western	82,997	5,35,768	3,426	21,937	123,766	5,24,733	563,421	25,05,957	6	43
13	...	Bengal-Doon	...	...	595	2,201	...	...	14,801	28,765	...	...
14	...	Ehavnagar-Gondal-Jumagad-Forbandar	21,769	80,040	210	892	6,006	17,235	70,830	2,51,024	9	62
15	...	Burma	670	3,493	4,974	41,745	1,700	10,590	572,896	27,25,973	61	724
16	...	Deoghur	100	31	50	14	...	...	440	136	...	...
17	...	Dibru-Sadiya	...	...	...	...	465	3,710	17,517	1,47,934	...	...
18	(c)	Hyderabad-Godavari Valley	2,939	92,761	444	4,255	130	739	25,213	1,79,866	3	34
18	...	Jodhpur-Dikaner	31,336	1,20,900	807	3,566	16,395	89,536	132,708	6,34,261	15	162
17	(d) & (e)	Madras	46	259	578	4,579	3,384	19,946	39,826	92,445	14	97
18	(b) & (g) to (j)	Rajputana-Malwa	151,963	13,77,176	12,535	94,239	96,824	5,54,830	462,650	36,31,062	73	547
19	(a) & (b)	Rohilkhand and Kumaon	66,029	1,24,618	1,063	4,079	14,693	40,293	128,871	2,87,762	727	8,245
20	...	South Indian	964	4,868	1,297	7,917	12,064	58,586	307,537	10,64,170	615	8,453
21	...	Southern Mahratta	12,645	76,673	4,931	44,619	10,111	39,855	201,681	11,11,897	10	77
22	...	Udaipur-Chitor	2,404	10,161	16	96	707	1,644	4,938	19,093	...	...
<b>3' 6" gauge.</b>												
24	...	Barri Light	1,416	3,034	24	43	98	12,178	25,971	...	...	
25	...	Bukhtiarpore-Bebar Light	...	...	...	...	...	...	...	...	...	
30	...	Morvi	2,541	5,337	37	140	1,149	2,780	7,599	16,783	2	8
2	(c)	Parlakimedi Light	13	9	4	3	258	183	1,715	1,392	...	...
19	(a)	Powayan Light	1,063	1,420	...	...	748	1,215	2,181	3,250	...	...
31	...	Ranaghat-Krishnagar Light	...	...	...	...	...	...	...	...	...	
33	...	Tarakeshwar-Magra	...	...	111	132	...	...	2,781	2,100	...	...
34	...	Tezpur-Balipara	...	...	...	...	...	...	679	3,149	...	...
23	...	Kalka-Simla	...	...	1	10	...	...	15	211	...	...
<b>2' 0" gauge.</b>												
26	...	Darjeeling-Himalayan	23	461	1,128	24,332	246	3,153	16,643	2,11,061	...	16
37	...	Howrah-Amta	...	...	...	...	...	...	...	...	...	
38	...	Howrah-Sheakhah	...	...	...	...	...	...	...	...	...	
39	...	Jorhat	...	...	...	...	...	...	...	...	...	
<b>TOTAL 1903</b>			2,469,652	2,36,87,705	181,397	10,55,834	533,114	28,52,417	7,756,318	5,27,71,863	6,150	68,404
<b>TOTAL 1902</b>			1,890,627	1,63,59,522	142,780	8,85,604	788,253	49,45,378	7,539,916	4,88,50,998	4,846	57,828
<b>INCREASE</b>			608,925	73,28,183	18,617	1,70,230	...	...	216,502	39,20,865	1,304	10,576
<b>DECREASE</b>			...	...	...	...	255,139	20,92,991	...	...	...	...

\* Includes particulars relating to branches worked on different gauges to the main line

DIX 17—continued.

Appendix 17.  
Principal commodities carried.

In Report for 1902.)  
earnings therefrom during the calendar year 1903.  
(graph 21 of the Report.)

X. HIDES AND SKINS.								XI.		XII.		XIII. JUTE.						Nom- ber.	Main head.	
(1) OF CATTLE.		(2) SKINS OF SHEEP AND OTHER ANIMALS.				TOTAL.		Horns.		Hemp (Indian) and other fibres, excluding jute.		(1) Raw.		(2) Gunny bags and cloth.		TOTAL.				
(b) Raw.		(a) Dressed or tanned.		(b) Raw.		TOTAL.		Horns.		Hemp (Indian) and other fibres, excluding jute.		(1) Raw.		(2) Gunny bags and cloth.		TOTAL.				
Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.			
Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.			
696	3,445	...	...	83	897	679	4,042	...	...	349	1,555	90,710	3,78,023	220	1,054	99,930	3,79,877	1		
9,115	78,731	...	...	...	...	9,115	78,731	747	4,576	8,369	44,340	...	...	13,016	1,34,215	13,016	1,34,215	2		
1,757	22,507	23	408	1,617	23,002	3,795	53,847	55	890	819	7,455	317	3,795	8,988	68,931	9,305	72,786	3		
25,707	1,01,460	...	...	1,331	6,787	27,038	1,08,256	206	885	2,215	12,818	642,879	44,70,717	16,925	74,589	659,804	45,45,308	4		
19,229	2,62,105	464	5,752	8,744	1,32,925	29,294	4,31,339	692	6,768	25,639	1,70,335	108,339	4,76,963	53,959	7,59,818	160,298	12,36,781	5		
3,414	46,855	57	1,021	8,268	89,673	12,711	1,47,674	1,027	17,232	15,429	3,35,392	1,207	23,741	27,302	2,79,578	28,509	3,03,319	6		
4,703	43,139	5,490	60,778	21,841	1,97,049	31,046	3,31,522	457	4,123	4,047	17,816	363	2,833	13,921	93,960	14,234	96,813	7		
251	3,118	79	1,188	2,033	20,520	2,389	24,508	268	1,643	268	3,817	9	108	2,920	24,465	2,928	24,503	8		
9,785	1,17,308	121	1,619	10,093	1,18,756	20,145	2,39,180	448	3,914	691	5,127	109	1,149	39,370	2,35,632	39,479	2,96,780	9		
4,760	30,535	...	11	2,492	12,751	7,295	43,894	646	2,457	8,530	29,008	472	3,103	13,424	76,507	13,896	79,610	10		
607	5,072	...	...	32	315	639	5,387	6	62	67	248	63,938	1,45,318	916	4,507	64,854	1,49,825	11		
7,214	47,267	64	415	3,037	29,103	10,341	67,558	123	998	2,331	7,605	1,748	11,082	19,852	1,19,391	21,598	1,30,473	12		
163	536	...	...	...	...	162	586	...	...	...	...	15,433	37,590	53	121	15,496	37,711	13		
363	3,664	23	231	254	1,604	649	4,544	3	9	3	20	...	1	2,205	7,617	2,205	7,618	14		
1,502	19,919	10	98	44	397	1,617	15,078	46	656	1	38	42	635	11,024	44,986	11,066	45,691	15		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	45	23	45	23	...	16	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	
98	1,076	1	10	804	8,345	895	9,465	21	300	98	1,025	2	12	1,963	17,394	1,965	17,406	18		
974	10,643	15	71	545	3,255	1,549	14,131	1	6	28	70	38	212	2,958	10,090	2,996	10,302	19		
73	373	37	170	537	1,095	651	2,325	5	17	36	149	...	...	391	1,639	391	1,639	20		
2,845	34,376	21	241	3,377	34,694	6,316	69,569	67	631	1,490	12,905	1,239	11,209	12,799	82,928	14,038	94,137	21		
...	...	...	...	353	1,706	1,933	4,951	77	400	2,310	10,121	6	34	3,295	9,643	3,301	9,677	22		
2,034	14,752	1,437	22,775	5,610	39,703	9,926	79,686	163	1,021	2,581	30,879	38	655	12,430	52,962	12,468	63,617	23		
846	8,293	128	715	6,584	44,924	7,568	54,039	244	2,185	1,933	16,766	6	50	8,609	58,716	8,615	58,772	24		
8	10	...	4	105	690	108	704	...	...	79	379	...	...	126	584	126	584	25		
8	26	...	...	69	155	77	181	2	4	30	81	...	...	915	2,166	915	2,166	26		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27	
106	416	1	3	31	161	139	568	2	8	...	1	...	2	160	560	160	562	28		
348	298	...	...	...	...	348	298	...	...	...	...	...	...	28	25	28	25	...	29	
...	...	...	...	...	...	...	...	...	...	364	746	...	...	...	...	...	...	...	30	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31	
...	...	...	...	15	64	15	64	...	...	...	...	950	902	...	...	950	902	...	32	
...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	...	1	3	...	33	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	10	1	10	...	34	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	35	
246	3,253	...	10	5	65	251	3,305	5	109	...	...	8	83	219	2,732	222	2,814	36		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39	
96,788	8,71,188	7,050	1,01,579	77,961	7,53,779	188,849	17,04,950	5,141	49,927	75,705	6,09,688	934,846	55,88,201	269,031	22,22,933	1,202,880	77,91,137	...	...	
83,651	9,04,083	8,365	90,406	71,812	7,27,492	169,677	16,79,797	5,887	63,873	71,815	5,55,228	969,396	63,43,163	250,978	20,72,941	1,319,374	84,16,104	...	...	
13,234	67,125	...	11,113	6,149	26,337	20,272	1,15,153	...	...	3,021	53,460	...	...	17,056	1,49,993	...	...	...	...	
...	...	415	...	...	...	...	...	746	14,943	...	...	83,550	7,74,959	...	...	16,494	6,24,967	...	...	

In cases in which separate statistics have not been maintained.



Appendix 17.  
Principal commodities carried.

(Appendices 18 and 1  
Principal commodities carried by railways and the earning  
(Referred to in paragraph

Main head.	NUMBER. Sub-head.	Railway including branches* worked.	XIV.		XV.						Liquor			
			Lac.		(1) Unwrought.		(2) Wrought, excepting boots and shoes.		Total.		(1) Ale and beer.		(2) Wines and spirits of all kinds including country spirit.	
			Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.
		Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	
<b>5' 6" gauge.</b>														
1	...	Bengal Central . . . . .	...	...	...	...	...	...	...	1	7	32	380	
2	(a) (b) & (d)	Bengal-Nagpur . . . . .	7,013	50,394	784	4,705	...	...	784	4,705	923	3,163	743	7,357
3	(a) (c) to (f) (m) & (n)	Bombay, Baroda and Central India . . . . .	413	1,266	767	11,388	949	17,565	1,716	28,853	1,545	18,345	2,642	25,447
4	...	Eastern Bengal State . . . . .	1,543	9,409	...	...	...	...	...	...	415	4,805	1,264	18,602
5	...	East Indian . . . . .	22,925	3,39,214	1,071	42,907	295	7,727	1,366	50,534	7,495	68,679	2,471	71,851
6	...	Great Indian Peninsula . . . . .	820	7,903	639	7,616	1,385	27,666	2,024	35,382	9,325	1,26,372	4,903	98,459
7	(a) to (c)	Madras . . . . .	299	2,371	413	3,551	479	8,893	923	12,444	2,909	35,190	4,757	40,962
8	(a) & (b)	Nizam's Guaranteed State . . . . .	19	263	650	9,624	139	1,801	819	11,325	1,456	13,111	268	3,642
9	...	North-Western State . . . . .	983	14,209	1,370	16,174	2,301	43,546	3,671	59,720	7,744	76,503	4,536	1,33,549
10	...	Oudh and Rohilkhand State . . . . .	1,320	10,093	100	1,898	107	1,225	207	3,123	5,132	19,617	2,368	32,250
<b>3' 3 1/2" gauge.</b>														
11	...	Assam-Bengal . . . . .	818	4,567	...	...	12	119	12	119	95	834	179	2,317
12	...	Bengal and North Western . . . . .	2,251	13,607	80	432	175	1,230	255	1,662	77	570	208	2,537
13	...	Bengal-Doon . . . . .	...	...	...	...	...	...	...	...	...	...	78	497
14	...	Bhavnagar-Gondal-Junagad-Porbandar . . . . .	12	61	194	1,091	31	390	228	1,381	25	128	169	1,514
15	...	Burma . . . . .	1,448	21,360	38	484	88	1,523	126	2,007	3,228	30,029	688	13,683
16	...	Deoghur . . . . .	100	32	...	...	...	...	...	...	...	...	...	...
17	...	Dibru-Sadiya . . . . .	...	...	...	...	...	...	...	...	...	...	54	629
18	(c)	Hyderabad-Godavari Valley . . . . .	24	260	29	136	63	651	92	787	15	86	26	473
18	...	Jodhpur-Bikaner . . . . .	397	8,910	165	1,611	20	240	185	1,851	34	399	67	830
7	(d) & (e)	Madras . . . . .	...	...	...	...	...	2	...	2	861	3,851	192	1,764
3	(b) & (g) to (i)	Rajputana-Malwa . . . . .	916	8,938	1,107	14,249	466	6,710	1,573	20,959	3,160	26,397	973	15,933
19	(a) & (b)	Rohilkhand and Kumaon . . . . .	213	1,050	6	38	39	303	45	341	1,203	6,654	186	2,260
20	...	South Indian . . . . .	301	1,628	2	23	26	353	28	376	435	3,500	3,444	26,557
21	...	Southern Maharatta . . . . .	39	195	723	6,290	228	2,261	951	8,551	1,154	10,250	2,746	21,263
22	...	Udaipur-Chitor . . . . .	5	30	16	107	25	123	41	230	2	17	3	26
<b>2' 6" gauge.</b>														
24	...	Barsi Light . . . . .	...	1	...	...	4	10	4	10	...	...	8	23
25	...	Bukhtiarpore-Bihar Light . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
26	...	Morvi . . . . .	3	9	25	122	21	113	46	235	3	11	10	93
2	(c)	Parlakimedi Light . . . . .	...	...	...	...	...	...	...	...	...	...	15	11
19	(c)	Powayan Light . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
21	...	Ranaghat-Krishnagar Light . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
23	...	Tarakeshwar-Magra . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
24	...	Tezpur-Balipara . . . . .	...	...	...	...	...	...	...	...	...	...	23	150
25	...	Kaika-Simla . . . . .	...	...	...	...	...	...	...	...	...	...	...	10
<b>2' 0" gauge.</b>														
6	...	Darjeeling-Himalayan . . . . .	1	32	...	7	6	169	6	176	523	5,012	137	4,113
7	...	Howrah-Amta . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
8	...	Howrah-Sheakhala . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
9	...	Jorhat . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
<b>TOTAL 1903</b>			42,501	4,95,790	8,119	1,22,353	6,862	1,22,420	14,981	2,41,773	47,939	4,53,720	33,198	5,27,709
<b>TOTAL 1902</b>			33,936	391,956	8,006	1,21,751	6,719	1,18,204	14,814	2,35,015	50,900	4,50,392	28,089	4,81,017
<b>INCREASE</b>			8,565	1,03,834	23	602	144	9,156	167	9,758	...	...	5,099	46,692
<b>DECREASE</b>			...	...	...	...	...	...	...	...	...	...	...	...

\* Includes particulars relating to branches worked on different gauges to the main line

Appendix 17  
Principal commodities carried

DIX 17—continued.

(in Report for 1902.)  
therefrom during the calendar year 1903.  
(of the Report.)

XVII—(contd. on following page).																		NUMBER.	
METALS.																		Main head.	
(3) All other sorts, including toddy and fermented liquor other than ale and beer.		Total.		(1) Brass, unwrought.		(2) Brass, wrought.		(3) Copper, unwrought.		(4) Copper, wrought.		(5) IRON AND STEEL.							
Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	(a) Cast.		(b) Unwrought.		(c) Wrought.			
Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.		
...	...	33	396	13	65	376	1,029	...	...	23	53	6	24	...	...	413	2,036	1	
...	...	1,665	10,560	...	...	1,093	10,748	...	...	220	4,305	515	7,051	...	...	20,931	79,301	2	
170	1,703	4,357	45,495	1,850	22,311	796	11,835	986	13,710	314	5,037	660	7,362	973	8,500	17,982	1,96,948	3	
...	...	1,679	23,407	401	3,408	2,850	25,308	218	1,890	209	3,321	1,102	10,421	103	385	22,242	1,55,651	4	
94	699	10,050	1,41,228	1,700	25,320	7,627	91,404	431	11,587	1,070	28,239	11,635	1,13,862	20,614	37,909	44,132	5,37,930	5	
28	265	14,258	2,25,096	3,713	79,476	2,818	52,457	1,333	26,029	1,205	27,138	3,212	62,453	13,313	2,16,792	32,106	5,19,552	6	
2,424	8,807	10,180	84,949	1,126	9,361	1,044	9,114	182	1,854	104	694	2,135	7,760	1,563	10,542	15,404	1,39,322	7	
1,533	6,369	3,257	23,322	163	1,520	206	2,188	43	279	66	897	377	3,383	2,190	15,387	1,006	10,911	8	
164	1,866	12,444	2,11,918	931	10,493	1,621	32,235	264	3,262	705	11,833	4,513	77,462	1,456	13,407	45,173	7,36,833	9	
...	...	7,500	51,867	58	275	3,535	26,043	130	634	235	1,666	1,423	9,158	26	62	14,537	62,816	10	
...	...	274	3,051	14	159	233	1,831	...	2	14	76	63	499	29	137	1,769	10,481	11	
...	...	285	3,107	150	1,269	1,705	13,363	27	199	152	1,231	1,025	6,651	282	1,405	7,650	39,839	12	
...	...	78	497	...	...	25	84	...	...	6	31	19	99	...	...	916	3,544	13	
...	...	185	1,442	302	939	270	1,801	147	670	68	663	79	481	187	289	969	6,067	14	
33	319	3,946	44,231	56	738	237	3,327	13	262	95	1,365	318	3,620	63	507	4,255	39,913	15	
...	...	...	...	10	3	20	6	...	...	...	...	40	18	65	25	...	...	16	
...	...	54	829	...	...	...	...	...	...	...	...	1,689	14,577	...	...	...	...	17	
3	17	54	676	9	64	95	1,018	3	39	23	240	52	634	76	583	2,536	26,269	18	
26	188	127	1,406	24	113	142	1,252	16	150	67	470	29	246	136	737	1,971	11,420	19	
25	275	1,078	5,890	5	15	7	22	17	38	6	21	19	187	77	496	315	2,373	20	
30	310	4,163	42,640	1,811	44,002	1,759	18,618	975	26,579	344	4,543	1,724	11,070	1,557	13,161	14,248	1,54,792	21	
2	16	1,391	9,130	27	106	421	3,193	5	34	51	357	134	492	185	678	2,689	14,224	22	
482	1,820	4,361	31,877	1,203	9,498	906	9,520	160	1,479	70	902	803	9,850	2,216	10,619	8,944	68,810	23	
4,391	21,825	8,291	53,838	222	2,840	1,129	11,768	192	2,225	556	6,572	612	6,789	4,941	27,921	5,387	44,294	24	
...	...	5	43	5	33	10	75	1	4	2	15	...	...	1	4	124	698	25	
...	...	8	23	6	25	31	93	5	17	18	56	7	18	128	301	535	1,259	26	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27
11	80	24	192	29	137	29	156	3	10	5	24	40	260	1	2	147	633	28	
...	...	15	11	...	...	6	5	...	...	...	...	...	...	...	...	32	24	29	
...	...	...	...	...	...	...	...	...	...	...	...	203	341	...	...	...	...	30	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	32
...	...	23	160	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	33
...	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	34
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	35	35	35
...	...	660	9,124	...	11	57	1,322	...	...	18	493	101	2,527	...	6	496	11,984	36	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39
9,416	44,568	90,443	10,25,005	13,798	3,12,170	28,547	3,19,004	5,171	90,926	5,695	1,00,262	32,735	3,56,305	50,201	3,00,267	266,410	29,67,379	40	
10,143	56,067	89,182	9,93,476	11,915	1,64,925	27,499	3,06,187	4,330	74,257	6,788	1,13,400	29,189	3,03,760	50,438	3,30,495	264,597	28,22,768	41	
...	...	1,311	32,519	1,883	47,345	1,049	13,617	841	16,666	...	...	3,546	53,525	...	29,773	1,813	64,511	42	
727	11,501	...	...	...	...	...	...	...	...	1,093	13,198	...	...	237	...	...	...	...	43

In cases in which separate statistics have not been maintained.

Appendix 17.  
Principal commodities carried.

APPEN

(Appendices 18 and 19)  
Principal commodities carried by railways and  
(Referred to in

Number.	Main board.	Sub-board.	Railway including branches worked.	XVII.				XVIII.									
				METALS—concluded.				OILS.									
				(5) Iron and steel—concluded.		(6) Others.		Total.		(1) Kerosine.		(2) Castor.		(3) Coconut.		(4) Mustard and rape.	
				(d) Manufactures.													
		Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.		
		Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.		
		<b>5' 6" gauge.</b>															
1																	
	(a), (b) & (d).																
2		Bengal Central	28	235	504	2,351	1,363	5,793	2,372	5,712	2	11	193	420	1,219	3,177	
3	(a), (c) to (f), (m) & (n)	Bengal-Nagpur	2,291	32,426	164,192	3,01,901	189,151	4,37,032	19,468	1,90,511	687	5,152	790	5,310	...	...	
4		Bombay, Baroda and Central India	7,706	114,561	4,218	44,887	35,285	4,23,131	12,369	1,45,838	963	7,388	827	10,964	379	3,110	
5		Eastern Bengal State	4,143	39,825	2,359	24,497	33,327	2,63,066	1,36,539	2,81,091	295	1,609	1,543	14,971	4,311	39,143	
6		East Indian	16,091	2,06,937	5,969	1,16,043	109,469	11,09,051	71,385	7,06,284	2,451	15,769	2,221	19,737	4,481	41,516	
7	(a) to (c)	Great Indian Peninsula	18,522	3,39,015	106,713	8,36,367	182,934	22,00,378	47,065	6,59,833	958	9,834	2,649	44,294	29	603	
8	(a) & (b)	Madras	10,711	1,04,516	2,296	21,172	34,565	3,04,335	29,613	2,07,332	5,415	13,375	2,013	30,469	191	1,378	
9		Nizam's Guaranteed State	855	11,219	518	6,754	5,464	52,538	4,409	29,411	397	3,004	81	960	1	9	
10		North Western State	8,697	1,47,503	2,874	51,186	65,653	10,74,214	20,933	3,79,082	247	3,190	754	9,434	2,034	12,412	
11		Oodh and Rohilkhand State	2,903	19,993	906	5,903	23,813	1,45,460	15,762	87,955	216	935	104	500	1,109	4,370	
		<b>3' 3 1/2" gauge.</b>															
12		Assam-Bengal	940	6,518	1,108	9,208	4,189	28,909	10,371	33,992	23	140	30	294	525	3,610	
13		Bengal and North Western	4,463	31,239	2,496	18,656	17,958	1,13,841	16,483	65,233	449	2,838	185	1,314	649	5,970	
14		Bengal-Dooars	491	2,940	674	3,200	2,131	9,698	1,975	6,951	...	...	2	9	346	1,719	
15		Bhavnagar-Gondal-Junagad-Portbandar.	442	2,688	187	1,154	2,071	15,287	3,325	14,296	206	991	117	543	145	383	
16		Burma	7,035	74,500	248	2,752	12,329	1,27,024	7,754	69,790	95	1,102	632	6,788	4	91	
17		Deoghur	...	...	...	...	155	82	49	25	...	...	5	2	...	...	
18		Dibru-Sadiya	...	...	544	4,586	2,233	10,103	...	...	...	...	...	...	6,091	19,329	
19	(c)	Hyderabad-Gadwari Valley	649	6,731	165	2,014	3,008	37,612	1,511	12,678	42	428	140	1,392	2	41	
20		Jodhpur-Bikaner	173	1,118	147	955	2,605	16,451	578	2,513	295	2,330	13	42	7	61	
21	(b) & (c)	Madras	393	3,452	197	1,963	1,036	8,569	687	3,161	24	56	212	635	1	4	
22	(b) & (c) to (d).	Rajputana-Malwa	3,928	66,097	4,375	57,530	30,750	3,96,692	8,951	77,438	1,260	8,104	462	10,313	453	4,050	
23	(a) & (b)	Rohilkhand and Kumaon	308	1,855	302	1,998	4,120	21,937	2,931	6,131	59	289	10	53	41	244	
24		South India	4,652	53,357	1,351	14,875	20,145	1,78,700	23,555	1,23,796	4,223	27,606	951	5,646	101	787	
25		Southern Mahratta	2,821	31,469	716	8,183	16,576	1,42,052	21,637	1,33,663	461	2,325	1,757	11,178	1	8	
26		Udaipur-Chitor	59	327	27	197	229	1,343	205	1,078	9	77	3	16	...	...	
		<b>2' 6" gauge.</b>															
27		Rare Light	125	342	8	28	665	2,136	413	992	4	10	78	224	...	...	
28		Bukhtarpore-Bihar Light	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
29		Morvi	79	426	16	84	348	1,732	81	207	37	124	6	22	16	47	
30	(c)	Parlakimedi Light	8	7	9	9	55	45	179	118	...	...	...	...	...	...	
31	(c)	Powayan Light	...	...	...	...	203	341	...	...	...	...	...	...	...	...	
32		Banaghat Krishnagar Light	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
33		Tarakeshwar-Nagra	4	10	...	...	4	16	55	59	...	...	...	...	...		
34		Texpur-Balipara	...	...	469	446	69	446	...	...	...	...	...	...	89	273	
35		Kalka-Simla	1	19	...	...	3	54	...	...	...	...	...	2	...	...	
		<b>2' 0" gauge.</b>															
36		Darjeeling-Himalayan	1,075	23,801	27	632	1,774	40,876	768	11,768	3	54	7	174	385	5,843	
37		Howrah-Amra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
38		Howrah-Sheakhala	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
39		Jorhat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		TOTAL 1903	99,989	13,72,137	303,502	15,42,229	805,048	72,40,576	459,191	32,57,858	18,748	1,00,534	16,094	1,75,741	22,456	1,56,582	
		TOTAL 1902	98,647	12,73,277	289,031	14,61,267	782,434	68,49,416	480,974	31,39,137	19,919	1,13,942	19,773	1,70,008	12,529	1,06,965	
		INCREASE	342	98,860	14,471	81,962	22,614	3,91,160	22,217	1,18,721	...	...	...	5,735	9,927	49,617	
		DECREASE	...	...	...	...	...	...	...	...	1,171	7,806	79	...	...	...	

\* Includes particulars relating to branches worked on different gauges to the main

DI 17—continued.

Appendix 17.  
Principal commodities carried.

in report for 1902.)  
the earnings therefrom during the calendar year 1903.  
paragraph 21 of the Report.)

XIX (continued on following page).

(5) Others.		Total.		OIL-SEEDS.																Number.	
				(1) Castor.		(2) Earthnuts.		(3) Linseed.		(4) Poppy.		(5) Rape and mustard.		(6) Til or jinjili.		(7) Cotton seed.					
Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Main head.	
Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.		
...	4	3,815	9,324	...	...	...	...	1,294	3,091	...	...	3,193	6,959	320	767	...	...	...	...	1	
1,919	13,263	23,864	2,10,236	...	...	...	...	4,157	25,253	...	...	5,296	31,478	31,471	2,90,165	...	...	...	...	2	
2,649	38,689	17,191	1,95,209	20,169	1,64,477	639	6,969	7,620	74,016	17,426	1,46,395	50,512	3,99,173	25,861	2,26,812	...	...	...	...	3	
1,235	5,256	1,43,602	3,41,070	794	1,911	...	...	14,952	49,107	...	...	23,277	88,882	151	583	...	...	...	...	4	
2,412	31,491	82,960	9,18,777	33,167	3,06,233	136	1,283	3,56,932	18,05,026	39,729	3,19,177	206,147	15,04,651	23,785	1,59,964	29,864	134,462	...	...	5	
2,559	1,04,563	60,280	3,18,626	54,770	3,92,396	6,287	60,445	1,45,969	18,39,476	25,085	3,45,278	71,141	9,77,392	165,292	19,55,242	151,130	1,678,991	...	...	6	
6,499	37,047	44,051	3,69,513	32,249	1,44,243	3,249	15,025	226	794	112	676	793	5,963	28,967	1,46,966	...	...	...	...	7	
426	3,473	5,254	36,657	66,200	3,65,559	70	531	5,208	10,241	140	707	33	265	19,340	1,19,345	...	...	...	...	8	
3,713	38,674	26,781	4,62,791	153	1,172	104	1,694	4,569	69,507	1,015	7,014	23,968	1,53,826	29,584	1,63,014	75,390	360,240	...	...	9	
858	5,058	16,046	93,218	3,214	11,647	97	475	36,778	1,37,853	19,193	80,257	46,223	1,87,295	8,102	37,275	...	...	...	...	10	
169	1,436	11,146	39,472	46	176	...	...	454	1,139	...	...	616	2,996	661	2,611	68	228	...	...	11	
419	2,922	18,177	76,277	7,267	33,390	5	17	127,257	5,82,765	6,902	35,068	51,965	2,69,673	1,313	6,271	...	...	...	...	12	
8	5	2,331	8,683	...	...	...	...	...	...	...	...	577	914	...	...	...	...	...	...	13	
266	1,307	4,149	17,620	4,265	13,310	101	694	4	20	13	59	1,444	1,913	5,427	19,048	5,702	13,313	...	...	14	
9,676	77,384	19,161	1,55,245	2	8	448	3,345	1	12	...	...	2	33	5,796	43,517	...	...	...	...	15	
55	16	108	43	23	7	...	...	10	3	5	2	20	6	5	3	...	...	...	...	16	
...	...	6,061	19,329	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17
1,836	16,972	3,531	31,509	433	3,386	46	423	26,635	1,73,620	66	480	22	204	2,076	14,007	13,920	92,464	...	...	18	
466	2,759	1,381	7,711	...	...	12	69	3	12	15	76	5,057	22,206	18,774	81,866	...	...	...	...	19	
787	3,298	1,711	7,154	3	19	10	45	...	...	...	...	7	12	229	372	...	...	...	...	20	
1,901	14,191	12,727	1,14,126	19,717	50,533	276	2,876	9,098	60,858	20,467	1,51,334	57,413	4,53,034	23,233	1,13,264	...	...	...	...	21	
96	756	2,238	7,477	2,733	7,469	6	24	11,258	26,629	2,394	4,011	10,461	28,934	1,445	4,168	...	...	...	...	22	
9,789	39,684	38,619	1,09,729	13,218	54,617	170,727	2,63,578	14	28	41	410	1,067	5,015	26,461	1,67,222	...	...	...	...	23	
4,623	27,185	29,479	1,74,359	13,181	86,904	2,912	14,527	6,626	31,020	494	4,883	428	2,620	31,723	2,44,259	25,226	128,531	...	...	24	
9	18	220	1,169	...	...	2	24	1	5	541	1,418	...	...	332	786	...	...	...	...	25	
55	154	550	1,380	418	895	32	84	8,851	18,818	16	38	77	167	580	1,244	1,163	2,477	...	...	26	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27
36	162	176	562	3	8	6	29	1	2	2	5	...	1	655	1,675	445	1,120	...	...	28	
7	8	168	126	...	...	...	...	...	...	...	...	14	11	10	8	...	...	...	...	29	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30
208	313	324	372	...	...	...	...	...	...	...	...	232	292	...	...	...	...	...	...	...	31
...	...	39	272	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	32
...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	33
43	1,071	1,205	19,910	...	...	2,	56	...	9	...	...	6	109	...	...	...	...	...	...	...	34
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	35
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38
59,536	4,58,558	5,76,625	41,55,273	2,72,016	16,55,629	185,167	3,98,378	667,889	49,08,376	1,32,716	10,99,296	580,220	41,44,064	451,113	38,07,494	301,708	24,11,626	...	...	39	
55,400	4,34,224	5,41,695	39,64,174	2,43,941	13,44,997	150,929	3,91,320	487,872	35,40,300	91,201	7,40,556	562,165	41,13,306	341,313	26,97,692	291,746	23,62,021	...	...	40	
4,046	24,334	34,940	1,01,009	28,075	2,10,642	54,238	31,058	179,966	13,68,070	41,515	358,730	...	30,778	109,800	11,09,602	9,962	49,805	...	...	41	
...	...	...	...	...	...	...	...	...	...	...	...	1,945	...	...	...	...	...	...	...	...	42

line in cases in which separate statistics have not been maintained.

Appendix 17.  
Principal commodities carried.

(Appendices 18 and 19)  
Principal commodities carried by railways and  
(Referred to in

Main head.	Sub-head.	Railway including branches* worked.	XIX				XX		XXI		XXII			
			OIL-SEEDS—concd.				Optum.		Paper and paste-board.		(1) Dried fruits and nuts.		(2) Ghee.	
			(3) Others.		Total.									
			Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.
			Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
		5' 6" gauge.												
1		Bengal Central	18	35	4,821	10,972	8	22	168	1,349	248	789	47	214
2	(a)(b)&(d)	Bengal-Nagpur	15,006	77,145	55,929	4,24,042	54	1,754	999	15,080	8,416	69,687	2,757	35,298
3	(a), (c) to (f), (m) & (n).	Bombay, Baroda and Central India.	14,628	1,42,067	136,745	11,81,929	2,358	87,040	1,804	26,935	18,818	2,04,715	5,082	65,084
4		Eastern Bengal State	255	1,005	39,429	1,30,788	29	339	7,265	12,573	307	2,080	1,117	11,382
5		East Indian	9,427	59,329	696,887	41,90,396	6,943	2,10,439	9,482	1,71,012	6,841	82,914	19,136	4,05,454
6		Great Indian Peninsula	16,130	1,44,873	635,824	73,83,995	653	25,258	3,194	52,380	37,292	6,17,305	15,226	2,13,470
7	(d) to (e)	Madras	29,394	1,67,496	94,850	4,81,164	53	1,724	1,071	15,701	12,672	55,166	4,795	43,808
8	(d) & (b)	Nizam's Guaranteed State	4,510	17,876	95,501	5,14,524	30	1,198	577	5,338	7,989	65,832	520	5,141
9		North-Western State	46,697	4,33,498	180,460	11,95,093	59	1,135	2,640	50,172	23,641	4,09,879	11,102	1,17,467
10		Oudh and Rohilkhand State	9,631	39,736	123,237	4,04,538	2,213	30,159	1,941	12,687	1,818	17,118	3,657	20,131
		3' 3 1/2" gauge.												
11		Assam-Bengal	9	45	2,055	7,194	...	3	143	677	174	1,041	156	1,198
12		Bengal and North-Western	10,398	40,361	205,162	9,67,335	7,305	1,17,280	2,327	5,625	1,428	16,698	3,566	29,229
13		Bengal-Doon	...	...	577	914	...	...	...	...	10	21	6	31
14		Bhavnagar-Gondal-Junagad- Porbandar.	...	...	16,958	47,357	8	105	183	1,187	3,469	15,814	1,431	8,440
15		Burma	...	...	6,249	48,915	25	369	415	6,109	1,054	11,260	505	13,412
16		Deoghur	50	14	113	35	...	...	...	...	...	...	25	7
17		Dibru-Sadiya	...	...	...	...	...	...	...	...	...	...	...	...
18	(c)	Hyderabad-Godavari Valley	2,233	12,545	46,031	2,96,084	...	...	217	3,707	1,808	20,625	638	7,892
19		Jodhpur-Bikaner	7,198	14,803	31,059	1,19,033	33	464	89	626	2,650	11,736	3,993	31,529
20	(d) & (e)	Madras	1,373	3,122	1,622	3,670	...	...	6	55	28	200	155	678
21	(b) & (g) to (i).	Rajputana-Malwa	7,394	35,876	137,593	6,67,475	3,949	62,890	1,400	24,665	13,304	1,81,661	7,082	79,764
22	(a) & (b)	Rohilkhand and Kumaon	124	446	28,440	71,791	211	2,045	107	919	247	1,675	326	1,445
23		South Indian	2,209	13,903	2,13,777	5,24,773	...	...	1,960	38,810	1,018	6,849	1,399	11,046
24		Southern Mahratta	12,322	87,743	92,912	6,00,487	3	55	636	7,972	25,432	1,77,168	4,684	35,158
25		Udaipur-Chitor	...	2	876	2,233	113	675	36	225	408	1,990	300	1,526
		2' 6" gauge.												
26		Barri Light	317	703	11,454	24,426	...	...	44	135	609	1,678	26	75
27		Bukhtiarpore-Behar Light	...	...	...	...	...	...	...	...	...	...	...	...
28		Morvi	117	310	1,229	3,150	5	98	90	585	140	505	59	225
29	(e)	Parlakimedi Light	200	169	224	168	...	...	...	...	...	...	...	...
30	(e)	Powayan Light	636	795	536	795	...	...	...	...	...	...	...	...
31		Ranaghat-Krishnagar Light.	...	...	...	...	...	...	...	...	...	...	...	...
32		Tarakeshwar-Magra	...	...	222	292	...	...	...	...	...	...	5	13
33		Tespur-Balipara	15	121	15	121	...	...	...	...	...	...	...	...
34		Kalka-Simla	...	...	...	...	...	...	...	...	...	7	...	...
		2' 0" gauge.												
35		Darjeeling-Himalayan	1	9	9	183	...	7	70	1,919	18	329	18	362
36		Howrah-Amra	...	...	...	...	...	...	...	...	...	...	...	...
37		Howrah-Sheakhala	...	...	...	...	...	...	...	...	...	...	...	...
38		Jorhat	...	...	...	...	...	...	...	...	...	...	...	...
		TOTAL 1903	190,071	12,83,518	2,760,849	1,98,12,591	25,990	5,44,063	87,183	4,50,664	169,513	19,82,618	88,142	11,86,226
		TOTAL 1902	207,351	14,87,661	2,886,418	1,65,23,043	20,603	4,43,314	36,953	4,33,292	140,856	17,37,266	81,792	11,07,205
		INCREASE	...	...	474,431	31,84,548	5,387	1,00,749	330	22,672	18,657	2,45,352	6,350	20,021
		DECREASE	17,280	1,44,143	...	...	...	...	...	...	...	...	...	...

\* Includes particulars relating to branches worked on different gauges to the main line

DIX 17—continued.

Appendix 17.  
Principal commodities carried.

in report for 1902.)  
the earnings therefrom during calendar year 1903.  
paragraph 21 of the Report.)

XXXX		XXIII																XXIV		Number.
RAILWAY PLANT AND ROLLING-STOCK CARRIED FOR THE PUBLIC AND FOREIGN RAILWAYS.																				
(5) Others.		Total.		(1) Locomotives, engines and tenders and parts thereof.		(2) Carriages and trucks and parts thereof.		(3) Materials.						Total.		Salt.				
Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	(a) Steel rails and fish-plates.		(b) Sleepers and keys of steel and cast-iron.		(c) Others.		Quantity.	Earnings.	Quantity.	Earnings.			
Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Main head.		
215	1,313	507	2,316	...	...	...	...	...	...	...	...	...	...	...	...	3,855	8,428	1		
3,858	50,563	15,005	1,54,528	430	3,061	3,078	18,040	1,118	13,473	1,141	13,143	43,850	2,60,143	54,620	3,08,790	90,351	5,85,334	2		
30,739	1,34,159	44,449	6,03,949	317	2,648	725	3,842	5,030	23,316	19	79	22,063	62,173	23,184	91,955	1,57,328	5,62,866	3		
10,784	77,912	12,188	91,274	369	105	3,030	1,336	5,750	5,461	3,186	2,196	3,948	10,786	16,283	19,684	78,956	3,80,897	4		
74,629	7,71,630	1,00,605	12,87,048	1,172	6,501	6,637	29,096	18,932	1,59,508	3,069	12,688	3,13,144	5,04,775	342,974	7,12,568	226,005	10,82,522	5		
37,052	3,58,071	89,570	11,88,846	203	2,118	171	692	7,283	63,320	3,239	25,094	4,406	23,013	15,403	1,14,436	179,515	17,47,531	6		
53,497	5,59,337	100,864	6,89,011	123	1,355	174	1,124	639	2,872	1,117	9,196	1,628	12,242	3,681	26,789	83,609	4,16,873	7		
2,757	15,696	11,275	59,659	3	39	...	...	493	1,742	3	22	...	...	499	1,302	31,950	1,70,709	8		
10,370	1,66,621	45,113	6,93,987	...	...	32	1,677	3,163	8,750	...	...	131,288	5,09,587	134,461	5,18,994	107,045	7,17,034	9		
1,276	11,746	6,751	48,995	30	204	...	1	1,183	2,376	374	803	11,889	27,106	13,476	30,567	65,941	3,89,173	10		
6,037	43,832	6,417	46,069	...	1	...	...	2,100	2,906	...	...	1,356	1,213	3,456	4,120	9,579	28,658	11		
23,108	69,406	23,092	1,34,535	...	...	...	...	...	...	...	...	...	...	...	...	108,200	4,26,503	12		
536	1,927	552	1,979	...	...	...	...	...	...	...	...	1,307	1,055	1,307	1,083	4,557	9,183	13		
6,182	27,731	10,062	51,786	60	212	...	...	1	1	...	...	10	96	71	309	5,240	9,445	14		
41,570	3,84,784	43,429	4,09,546	...	...	...	...	1,347	17,066	...	...	...	...	1,347	17,066	16,051	1,68,742	15		
...	...	25	7	...	...	...	...	...	...	...	...	...	...	...	...	2,715	401	16		
398	3,626	398	3,626	...	...	...	...	...	...	...	...	...	...	...	...	608	4,934	17		
4,100	20,208	6,544	49,725	203	1,703	263	2,115	9	87	...	...	61	542	540	4,447	9,704	90,991	18		
1,116	4,542	7,758	47,806	216	553	118	356	7,778	28,315	1,116	4,353	4,763	6,997	13,993	40,474	25,517	1,41,127	18		
4,017	17,957	4,105	18,836	30	120	176	725	147	311	...	...	23	77	375	1,233	1,162	3,091	7		
10,673	69,280	30,439	3,31,005	40	920	110	1,180	1,743	12,869	555	5,978	78,055	89,154	60,513	1,10,101	245,309	24,45,070	3		
520	4,779	1,093	7,599	...	...	...	...	8	23	...	...	8,269	26,874	8,277	26,597	13,449	35,116	19		
39,267	1,79,353	32,684	1,66,549	39	322	480	1,035	6,318	14,239	6,097	15,204	2,381	7,404	15,315	39,604	77,999	3,95,120	20		
19,366	1,12,371	49,484	3,34,727	...	7	59	607	2,003	9,653	9	44	184	819	2,355	11,140	60,371	3,76,652	21		
479	1,962	1,242	5,507	...	...	...	...	...	...	...	...	21	21	21	21	733	3,149	22		
46	181	681	1,681	...	...	...	...	...	...	...	...	...	...	...	...	4,293	9,952	24		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	25	
381	1,034	460	1,814	...	...	...	...	...	...	...	...	...	...	...	...	665	1,090	30		
42	38	42	38	...	...	...	...	...	...	...	...	78	27	78	27	276	176	3		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	185	241	19		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21	
5	13	10	26	...	...	...	...	...	...	...	...	...	...	...	...	187	312	33		
37	206	37	206	...	...	...	...	112	801	...	...	...	...	112	801	11	65	54		
...	5	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	26	
1,632	24,400	1,663	25,091	...	...	...	...	...	...	...	...	...	...	...	...	1,049	17,428	36		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39	
894,019	31,84,305	651,674	62,83,140	3,342	20,846	15,051	62,020	65,158	3,67,039	19,948	89,200	633,744	15,43,697	737,241	20,91,798	1,609,292	99,37,343	...		
380,857	32,31,062	612,505	60,76,453	3,368	26,109	9,422	36,163	81,267	3,73,235	12,020	68,539	368,956	12,00,855	475,033	16,94,961	1,616,163	95,15,866	...		
15,182	...	39,169	3,06,696	...	...	5,629	25,863	...	...	7,928	30,611	264,768	3,41,822	262,208	3,86,897	...	21,477	...		
...	67,677	...	...	26	5,263	...	...	16,111	6,106	...	...	...	...	...	...	6,871	...	...		

In cases in which separate statistics have not been maintained.

Appendix 17.  
Principal commodities carried.

APPEN  
(Appendices 18 and 19)  
Principal commodities carried by railways and  
(Referred to

Main head.	Sub-head.	Railway including branches* worked.	XXV.						XXVI.									
			SALTPETRE AND OTHER SALINE SUBSTANCES.						SILK.									
			(1) Saltpetre.		(2) Other saline substances.		Total.		(1) Raw.				(2) Piece goods.				Total.	
			Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	(a) Foreign.		(b) Indian.		(a) Foreign.		(b) Indian.		Quantity.	Earnings.
Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	
		5' 6" gauge.																
1		Bengal Central . . .	2	14	90	378	92	392	...	...	...	...	...	...	...	...	...	...
2	(a) & (b) & (d).	Bengal-Nagpur . . .	...	...	...	...	...	...	...	410	6,543	...	...	...	...	410	6,543	
3	(a), (c) to (f), (m) & (n).	Bombay, Baroda and Central India.	1,070	9,430	860	10,036	1,930	19,466	277	6,731	240	5,968	19	591	94	2,850	630	16,138
4		Eastern Bengal State .	51	341	2,402	8,577	2,453	8,918	...	...	168	1,682	...	...	19	228	171	1,908
5		East Indian . . .	24,851	2,69,950	18,201	1,36,668	43,052	4,05,518	...	...	845	10,675	3	47	154	5,753	1,002	16,674
6		Great Indian Peninsula	636	12,471	3,539	48,119	4,175	60,590	150	2,626	104	6,122	90	4,703	9	252	353	13,703
7	(a) to (e)	Madras . . .	160	1,197	61	792	221	1,989	27	538	174	3,657	19	179	49	740	269	5,112
8	(a) & (b)	Nizam's Guaranteed State.	116	836	929	5,759	945	6,595	...	...	...	7	...	9	1	39	1	54
9		North-Western State .	6,789	39,122	8,951	85,529	15,740	124,651	301	6,467	204	6,635	43	639	66	1,285	614	15,026
10		Oodh and Rohilkhand State.	960	4,123	168	616	1,128	4,044	...	...	6	47	...	...	8	106	14	183
		3' 3 1/4" gauge.																
11		Assam-Bengal . . .	2	18	8	49	10	62	...	...	80	259	...	1	...	5	80	268
12		Bengal and North-Western.	13,850	62,944	4,513	20,535	18,463	73,479	...	...	...	87	...	...	3	60	14	147
13		Bengal-Dooars . . .	...	...	101	268	101	268	...	...	...	...	...	...	...	...	...	...
14		Bhavnagar-Gondal-Junagad-Porbandar.	37	178	12	70	49	246	9	26	...	...	...	...	...	2	9	28
15		Burma . . .	1	20	18	301	19	321	46	1,280	2	52	8	149	6	29	62	1,510
16		Deoghur . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17		Dibru-Sadiya . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	(c)	Hyderabad-Godavari Valley.	40	500	178	1,464	218	2,034	5	102	...	1	...	8	5	138	10	249
19		Jodhpur-Bikaner . . .	309	1,909	1,560	7,526	1,869	9,334	12	79	3	49	1	2	...	9	16	139
20	(d) & (e)	Madras . . .	280	2,030	...	...	280	2,030	...	...	...	...	...	...	...	2	...	2
21	(b) & (g) to (i).	Rajputana-Malwa . . .	8,850	53,093	2,670	22,246	11,520	75,939	219	11,851	22	414	19	1,172	67	3,944	327	17,381
22	(a) & (b)	Rohilkund and Kumaon	132	321	449	1,145	581	1,466	...	...	...	...	...	...	...	...	...	...
23		South Indian . . .	342	2,080	12	72	354	2,152	...	...	23	352	...	...	2	19	25	371
24		Southern Mahratta . . .	156	999	223	2,156	379	3,155	127	2,165	188	1,151	...	...	...	2	315	3,318
25		Udaipur-Chitor . . .	26	157	56	305	82	432	...	1	...	...	...	...	...	...	...	1
		2' 6" gauge.																
26		Barai Light . . .	...	...	33	87	33	87	6	22	...	1	...	...	...	...	6	23
27		Bukhtiarpore-Behar Light.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28		Morvi . . .	14	46	...	...	14	46	...	...	...	2	...	...	...	...	...	2
29	(c)	Parlakimedi Light . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30	(e)	Powayan Light . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
31		Ranaghat-Krisnagar Light.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32		Tarakeshwar-Magra . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
33		Tezpur-Balipara . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34		Kalka-Simla . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		2' 0" gauge.																
35		Darjeeling-Himalayan .	...	...	1	20	1	20	1	32	...	...	...	...	...	...	1	32
36		Howrah-Amra . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
37		Howrah-Sheakhala . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
38		Jorhat . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		TOTAL 1903 . . .	59,902	4,51,237	44,925	3,52,917	1,03,727	8,04,154	1,180	31,917	2,420	49,009	202	7,500	477	15,459	4,279	98,778
		TOTAL 1902 . . .	57,095	4,63,716	40,141	3,13,877	97,236	7,77,393	1,187	33,193	2,755	45,611	250	10,280	403	12,849	4,593	1,04,433
		INCREASE . . .	1,707	...	4,784	8,240	6,491	26,761	...	...	...	...	...	...	74	3,110	...	...
		DECREASE . . .	...	12,479	...	...	...	...	7	1,276	335	4,709	49	2,780	...	...	316	5,656

\* Includes particulars relating to branches worked on different gauges to the main line



DIX 17—continued.  
 in report for 1902.)  
 the earnings therefrom during the calendar year 1903.  
 in paragraph 21 of the Report.)

Appendix 17.  
 Principal commodities carried.

XXVII.															XXVIII.		Number.		
Spices.															Stone and lime.				
(1) Betelnuts.		(2) Cardamoms.		(3) Chillies.		(4) Ginger.		(5) Pepper.		(6) Others.		Total.							
Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Main head.	
Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.		
7,723	27,000	...	...	318	1,016	2	10	...	...	246	797	8,284	28,843	3,672	2,790	...	...	1	
5,772	49,538	...	...	3,878	37,161	...	...	...	...	3,959	29,475	13,607	1,15,174	36,248	1,34,706	...	...	2	
1,247	24,984	76	1,957	1,624	20,411	1,119	19,664	690	14,136	8,679	1,03,023	13,435	1,77,874	31,120	1,00,039	...	...	3	
10,789	93,662	254	5,449	5,146	34,764	1,631	20,847	411	9,032	2,638	17,477	20,894	1,85,031	26,860	42,763	...	...	4	
11,664	2,67,978	493	12,233	7,096	95,547	963	8,328	918	23,671	9,978	1,65,939	31,132	5,73,596	299,454	11,22,969	...	...	5	
8,774	1,79,902	87	3,898	7,297	65,824	604	16,802	506	20,063	9,701	1,37,500	26,969	4,24,289	103,416	2,22,141	...	...	6	
11,665	1,22,847	21	410	18,843	1,31,551	1,141	8,754	2,530	22,526	3,653	21,220	37,853	3,07,308	82,603	1,24,010	...	...	7	
1,113	10,669	3	48	2,089	16,923	99	736	33	350	1,309	10,124	4,626	38,784	9,959	35,126	...	...	8	
657	5,779	278	3,049	6,088	58,782	1,390	19,348	726	21,695	3,100	35,938	12,231	1,47,591	305,251	3,69,268	...	...	9	
1,975	83,588	64	736	1,676	16,187	439	3,608	119	1,020	1,788	9,094	5,941	63,432	143,123	1,48,633	...	...	10	
1,477	8,697	...	...	630	2,683	...	2	9	57	76	522	1,892	12,161	3,790	8,781	...	...	11	
2,861	24,014	196	2,000	4,949	39,121	1,271	11,824	464	4,639	2,667	20,190	12,419	1,00,792	15,019	37,689	...	...	12	
247	930	24	159	17	67	61	93	...	...	28	107	377	1,345	308	765	...	...	13	
634	3,231	1	14	212	1,479	16	113	6	62	1,226	4,492	2,095	9,391	55,744	36,883	...	...	14	
5,307	54,533	3	46	6,812	1,13,383	659	7,180	19	447	130	1,275	12,920	1,76,853	78,759	1,06,719	...	...	15	
28	8	1	1	10	3	...	...	5	2	...	...	41	14	...	...	...	...	16	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	6,567	7,55	...	...	17	
497	5,631	2	25	1,153	13,434	26	281	20	250	236	2,645	1,933	22,266	530	93	...	...	18	
104	679	6	37	682	6,201	41	369	24	150	659	3,557	1,516	10,993	21,4	29,239	...	...	19	
1,159	2,936	3	9	2,833	11,034	20	60	80	291	24	62	4,117	14,412	589	5	...	...	20	
982	16,187	83	3,678	2,589	25,629	622	16,997	457	15,575	11,875	1,10,534	16,597	1,58,480	34,396	96,441	...	...	21	
171	1,530	22	97	330	1,673	90	460	21	173	459	1,596	1,093	5,531	23,098	29,675	...	...	22	
15,168	81,283	466	4,424	9,671	1,01,403	423	3,499	700	7,164	481	3,172	26,849	2,00,925	81,553	1,16,145	...	...	23	
12,330	1,00,144	176	2,410	17,893	1,15,096	318	2,944	498	4,129	6,156	46,821	37,371	2,73,544	26,384	56,381	...	...	24	
5	38	1	5	4	25	20	174	2	19	73	321	105	563	178	714	...	...	25	
387	1,037	...	1	43	116	6	23	7	20	129	329	574	1,525	91	251	...	...	26	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27
16	56	...	1	31	153	2	7	...	1	101	543	150	759	223	402	...	...	28	
2	2	13	12	...	...	...	...	...	...	17	13	32	26	13	7	...	...	29	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31
...	...	...	...	...	...	...	...	...	...	...	...	...	...	49	53	...	...	32	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	59	159	...	...	33	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	24	258	...	...	34	
41	982	137	2,322	10	186	...	8	17	401	31	627	236	4,439	1,289	13,686	...	...	35	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39
102,564	11,16,987	2,410	44,914	101,162	9,07,643	10,985	143,150	8,290	1,44,894	69,394	729,696	295,265	30,85,954	1,369,618	28,62,553	...	...	40	
89,387	9,75,900	2,917	43,595	105,348	10,16,604	7,444	87,978	6,568	1,31,315	61,069	679,649	273,263	29,27,941	1,336,606	25,39,925	...	...	41	
13,237	1,40,867	...	2,319	...	...	3,541	54,173	1,723	13,569	7,735	50,047	22,032	1,58,013	153,013	3,23,928	...	...	42	
...	...	507	...	4,186	1,03,981	...	...	...	...	...	...	...	...	...	...	...	...	...	43

in cases in which separate statistics have not been maintained.

Appendix 17.  
Principal commodities carried.

APPEN

Principal commodities carried by railways and  
(Appendices 18 and 19)  
(Referred to in part)

Number.		Railway including branches* worked.	XXIX.								XXX.					
Main head.	Sub-head.		(1)		(2) Unrefined.				Total.		(1)		(2)		Total.	
			Refined or crystallized including sugar-candy.		(a) Sugar.		(b) Gm, rad, jaggery, molasses and other saccharine produce.		Quantity.	Earnings.	Foreign.	Indian.	Quantity.	Earnings.	Quantity.	Earnings.
			Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.								
		Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	
		<b>5' 6" gauge.</b>														
1		Bengal Central . . . . .	663	2,513	2,005	4,530	1,011	2,600	3,679	9,643	...	...	4	6	4	6
3	(a) (b) & (d)	Bengal-Nagpur . . . . .	13,346	85,443	...	...	15,732	1,33,085	29,077	2,28,538	...	...	759	10,373	759	10,373
3	(a) (c) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z)	Bombay, Baroda and Central India	30,119	3,63,086	164	1,324	29,743	2,66,605	89,046	6,60,916	474	5,797	247	3,794	721	9,591
4		Eastern Bengal State . . . . .	14,046	95,532	12,103	51,891	23,451	1,33,913	49,600	2,71,296	...	...	36,221	7,40,673	36,221	7,40,673
5		East Indian . . . . .	22,956	2,42,705	50,532	3,00,378	110,319	5,57,736	193,807	11,00,919	...	...	1,901	30,172	1,901	30,172
6		Great Indian Peninsula . . . . .	58,601	9,80,826	9,946	89,325	95,828	8,25,449	164,275	18,95,600	100	1,659	1,809	43,361	1,909	44,920
7	(a) to (d) & (e) & (f) & (g) & (h) & (i) & (j) & (k) & (l) & (m) & (n) & (o) & (p) & (q) & (r) & (s) & (t) & (u) & (v) & (w) & (x) & (y) & (z)	Madras . . . . .	13,184	48,751	9,323	27,304	56,436	2,01,274	77,949	2,77,329	26	666	431	8,300	457	9,025
8	(a) to (d) & (e) & (f) & (g) & (h) & (i) & (j) & (k) & (l) & (m) & (n) & (o) & (p) & (q) & (r) & (s) & (t) & (u) & (v) & (w) & (x) & (y) & (z)	Nizam's Guaranteed State . . . . .	1,925	14,678	1,384	12,403	6,213	47,680	9,532	74,765	16	219	55	908	71	1,162
9		North-Western State . . . . .	60,303	11,77,054	16,198	1,15,740	134,073	9,50,657	210,574	22,48,451	685	18,432	2,459	35,643	3,144	54,075
10		Oudh and Rohilkhand State . . . . .	10,097	49,091	66,994	2,97,979	79,324	2,83,248	156,415	6,30,318	...	...	2,097	12,542	2,097	12,542
		<b>3' 3 1/2" gauge.</b>														
11		Assam-Bengal . . . . .	220	824	1,023	4,461	2,690	11,520	3,938	16,805	...	...	19,408	1,64,048	19,408	1,64,048
12		Bengal and North-Western . . . . .	12,779	90,683	21,266	1,37,816	62,946	314,963	96,991	5,33,331	...	...	77	938	77	938
13		Bengal-Dooars . . . . .	597	1,988	60	247	962	3,787	1,619	6,002	34,116	2,41,122	...	...	34,116	2,41,122
14		Bhavnagar-Gondal-Junagad-Port-Bladar . . . . .	6,478	26,438	...	...	4,908	18,321	11,286	47,759	4	40	29	233	33	273
15		Burma . . . . .	65	479	3,948	43,208	15,126	1,32,081	19,137	1,75,789	1,165	19,615	65	674	1,230	20,464
16		Deoghur . . . . .	...	...	100	28	165	44	255	72	...	...	...	...	...	...
17		Dibru-Sadiya . . . . .	...	...	304	3,330	...	...	304	2,330	...	...	7,736	61,832	7,736	61,832
18	(e)	Hyderabad-Godavari Valley . . . . .	1,898	15,606	298	2,252	3,904	24,590	5,710	42,448	7	100	1	21	8	121
19		Jodhpur-Bikaner . . . . .	2,949	19,668	3,846	19,853	9,149	59,357	15,843	98,878	11	205	13	213	24	418
20	(d) & (e) & (f) & (g) & (h) & (i) & (j) & (k) & (l) & (m) & (n) & (o) & (p) & (q) & (r) & (s) & (t) & (u) & (v) & (w) & (x) & (y) & (z)	Madras . . . . .	700	3,140	40	343	2,224	5,169	3,964	8,652	4	14	167	939	171	963
21	(b) & (c) & (d) & (e) & (f) & (g) & (h) & (i) & (j) & (k) & (l) & (m) & (n) & (o) & (p) & (q) & (r) & (s) & (t) & (u) & (v) & (w) & (x) & (y) & (z)	Rajputana-Malwa . . . . .	21,020	2,30,485	47,108	3,84,345	83,543	9,87,919	161,671	16,02,749	412	11,645	158	1,979	570	13,624
22	(a) & (b) & (c) & (d) & (e) & (f) & (g) & (h) & (i) & (j) & (k) & (l) & (m) & (n) & (o) & (p) & (q) & (r) & (s) & (t) & (u) & (v) & (w) & (x) & (y) & (z)	Rohilkund and Kumaon . . . . .	1,064	3,997	5,971	14,602	14,440	54,903	21,395	78,307	...	...	249	2,726	249	2,226
23		South Indian . . . . .	21,130	73,016	7,525	23,138	50,774	3,00,503	79,429	3,96,655	1	17	2,572	16,084	2,573	16,091
24		Southern Mahratta . . . . .	7,116	37,762	5,902	40,918	58,556	3,46,763	69,673	4,26,463	20	332	42	929	62	1,161
25		Udaipur-Chitor . . . . .	157	786	837	4,169	838	4,274	1,832	9,229	...	1	1	6	1	7
		<b>2' 6" gauge.</b>														
26		Barsi Light . . . . .	382	867	12	30	269	654	643	1,551	1	3	...	...	1	3
27		Bukhtiarpore-Bohar Light . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28		Norvi . . . . .	213	629	39	317	953	2,559	1,204	3,605	2	10	3	16	5	20
29	(c)	Parlakmedi Light . . . . .	56	33	...	...	...	...	56	33	...	...	...	...	...	...
30	(e)	Powayan Light . . . . .	...	...	884	961	...	...	884	961	...	...	...	...	...	...
31		Banaghat-Krishnagar Light . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32		Tarakeshwar-Magra . . . . .	...	...	46	83	111	137	159	220	...	...	...	...	...	...
33		Tezpur Balipara . . . . .	5	24	...	...	...	...	5	24	...	...	3,679	26,103	30,679	26,103
34		Kalka-Simla . . . . .	...	...	...	...	23	339	23	339	...	...	...	...	...	...
		<b>2' 0" gauge.</b>														
35		Darjeeling-Himalayan . . . . .	61	1,120	643	11,357	297	4,593	1,001	17,070	...	...	4,095	57,152	4,095	57,152
36		Howrah-Amra . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...
37		Howrah-Sheakbala . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...
38		Jorhat . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		TOTAL 1903 . . . . .	300,938	36,00,122	269,330	15,91,256	860,597	56,84,417	1,429,966	1,08,55,795	37,044	3,02,776	94,329	12,19,364	1,21,973	15,22,149
		TOTAL 1902 . . . . .	310,204	36,66,349	242,365	15,58,164	826,302	55,02,288	1,378,971	1,07,20,791	2,268	46,931	103,105	13,32,064	1,05,373	13,78,991
		INCREASE . . . . .	...	...	26,965	33,102	34,295	1,62,129	50,994	1,29,004	34,776	2,55,845	...	...	15,999	1,43,149
		DECREASE . . . . .	9,266	66,227	...	...	...	...	...	...	...	...	18,777	1,12,690	...	...

\* Includes particulars relating to branches worked on different gauges to the



Appendix 17.  
Principal commodities carried.

APPEN

(Appendices 18 and 19)  
Principal commodities carried by railways and  
(Referred to in paragraph

NUMBER.		Railway including branches* worked.	XXXIII.				XXXIV.	
Main head.	Sub-head.		Wool—concluded.				All other articles of merchandise.	
			(2) Manufactured—concl'd.		TOTAL.			
			(d) Other sorts of manufactures.				Quantity.	Earnings.
		Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	
		5' 6" gauge.						
1	...	Bengal Central . . . . .	...	...	...	7,156	25,236	
2	(a), (b) & (d)	Bengal-Nagpur . . . . .	...	...	...	82,544	4,18,433	
3	(a), (c) to (f), (m) & (n).	Bombay, Baroda and Central India . . . . .	60	1,340	6,421	1,31,813	284,248	
4	...	Eastern Bengal State . . . . .	146	1,825	1,746	33,095	170,632	
5	...	East Indian . . . . .	1,028	27,954	3,741	88,202	381,939	
6	...	Great Indian Peninsula . . . . .	1,093	20,421	2,429	57,228	†178,119	
7	(a) to (c)	Madras . . . . .	595	5,009	3,769	29,335	103,879	
8	(a) & (b)	Nizam's Guaranteed State . . . . .	...	...	435	4,689	11,536	
9	...	North Western State . . . . .	703	14,944	19,053	5,26,148	330,738	
10	...	Oudh and Rohilkhand State . . . . .	...	...	568	4,622	176,229	
		3' 3 1/2" gauge.						
11	...	Assam-Bengal . . . . .	...	7	17	211	9,417	
12	...	Bengal and North-Western . . . . .	85	627	1,301	5,037	69,664	
13	...	Bengal-Dooars . . . . .	...	...	...	11,687	44,316	
14	...	Bhavnagar-Gondal-Junagad-Forbandar . . . . .	1	6	506	3,255	7,494	
15	...	Burma . . . . .	...	...	130	2,828	156,924	
16	...	Deoghur . . . . .	...	...	...	9,835	2,903	
17	...	Dibru-Sadiya . . . . .	...	...	...	†132,819	†165,636	
18	(c)	Hyderabad-Godavari Valley . . . . .	...	...	104	1,415	3,291	
19	...	Jodhpur-Bikaner . . . . .	69	555	3,032	23,381	21,753	
20	(d) & (e)	Madras . . . . .	4	16	42	369	4,969	
21	(b) & (g) to (h).	Rajputana-Malwa . . . . .	119	2,604	7,320	1,33,545	160,416	
22	(a) & (b)	Rohilkhand and Kumaon . . . . .	32	216	255	2,000	73,252	
23	...	South India . . . . .	155	1,346	2,218	5,978	113,599	
24	...	Southern Mahratta . . . . .	890	10,833	1,120	14,444	84,371	
25	...	Udaipur-Chitor . . . . .	1	17	66	498	769	
		2' 6" gauge.						
26	...	Barsi Light . . . . .	6	16	6	16	481	
27	...	Bukhtiarpore-Bihar Light . . . . .	...	...	...	...	6,743	
28	...	Morvi . . . . .	1	7	119	1,018	960	
29	(c)	Parlakimedi Light . . . . .	...	...	...	...	347	
30	(c)	Powayan Light . . . . .	...	...	...	...	15,069	
31	...	Ranaghat-Krishnagar Light . . . . .	...	...	...	...	6,705	
32	...	Tarakeswar-Megra . . . . .	...	...	...	...	6,900	
33	...	Tezpur-Balipara . . . . .	...	...	...	...	1,173	
34	...	Kalka-Simla . . . . .	...	...	...	5	17	
		2' 0" gauge.						
35	...	Darjeeling-Himalayan . . . . .	3	102	26	730	4,442	
36	...	Howrah-Amta . . . . .	...	...	...	...	16,912	
37	...	Howrah-Sheakhala . . . . .	...	...	...	...	7,253	
38	...	Jorhat . . . . .	...	...	...	...	12,071	
		TOTAL 1903 . . . . .	4,991	87,947	53,464	10,06,812	2,526,298	
		TOTAL 1902 . . . . .	4,281	65,365	43,737	7,92,743	2,760,462	
		INCREASE . . . . .	710	22,582	9,727	2,73,899	...	
		DECREASE . . . . .	...	...	...	...	234,164	

\* Includes particulars relating to branches worked on different gauges to the † Including 20,677 tons and Rs. 82,703 of the Gwalior Light railway ‡ Excluding Rs. 5,59,946 in respect of ferries and \*\* Total shown against "All other articles of merchandise."

†† Including 19,920 tons and Rs. 11,845 of general merchandise of the Ledo and Tikak-Margherita colliery railway of which details by commodities have not been furnished.

DIX 17—concluded.

Appendix 17.  
Principal commodities carried.

in Report for 1902.)  
the earnings therefrom during the calendar year 1903.  
21 of the Report.)

GRAND TOTAL.		ANIMALS.										NUMBER.
		(1) HORSES.		(2) CATTLE.		(3) SHEEP, ETC.		(4) ELEPHANTS.		TOTAL.		
Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Quantity.	Earnings.	Main head.
Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	
189,105	5,90,435	...	...	2	23	...	2	...	...	2	25	1
2,201,781	78,13,754	39	4,076	5,743	25,127	3,193	32,728	...	...	8,974	59,931	2
1,449,812	1,08,48,873	285	10,367	6,839	1,50,766	12,193	2,41,682	...	...	19,297	4,02,815	3
1,084,544	98,19,095	4	39	140	1,689	133	1,029	...	...	277	2,757	4
9,398,646	4,61,46,254	1,779	1,11,592	2,692	77,344	2,852	70,754	1	1,154	7,324	2,60,814	5
3,284,933	3,97,97,243	1,168	93,858	6,112	68,030	9,191	1,43,731	...	...	16,466	3,05,619	6
1,929,624	93,56,057	...	...	...	...	...	...	...	...	...	...	7
682,330	34,05,846	272	7,819	62	1,625	30	476	...	...	364	9,920	8
2,480,690	3,19,97,050	14,948	1,21,954	6,189	25,476	19,417	9,130	...	...	40,504	2,06,560	9
1,472,235	59,48,971	567	10,975	526	5,484	17	2,554	...	...	1,110	19,013	10
2,10,057	8,31,206	21	517	40	739	126	1,649	...	...	187	2,905	11
1,387,443	159,63,670	39	1,135	221	4,247	28	1,746	...	...	339	7,123	12
107,503	4,37,037	...	...	...	...	...	...	...	...	...	...	13
247,774	8,39,861	53	544	38	737	9	67	1	253	101	1,900	14
1,183,174	59,79,253	628	31,770	9,221	2,85,164	1,647	39,155	...	...	11,694	3,56,069	15
15,960	4,349	...	...	...	...	...	...	...	...	...	...	16
549,572	7,94,053	47	309	...	...	...	...	...	...	47	309	17
153,534	12,61,148	56	1,322	7	164	52	1,089	...	...	115	2,535	18
926,571	14,91,848	80	1,975	7	101	5	55	...	...	92	2,131	18
76,296	2,53,204	...	...	...	...	...	...	...	...	...	...	17
1,870,892	1,45,63,583	418	15,909	1,974	20,357	4,129	50,511	...	...	5,921	86,777	19
362,151	9,45,167	28	1,080	31	417	...	...	...	...	59	1,507	19
1,813,369	52,59,416	21	454	796	5,995	8,353	15,738	...	...	4,170	21,455	20
933,735	54,24,444	283	9,029	242	5,698	632	5,048	1	147	1,158	20,509	21
13,805	64,105	4	50	5	45	...	...	...	...	9	95	22
44,585	1,04,901	...	...	...	...	...	...	...	...	...	...	24
**6,743	**9,438	...	...	...	...	...	...	...	...	...	...	25
18,643	69,273	22	319	7	63	...	...	...	...	29	402	30
3,824	3,005	...	...	...	...	...	...	...	...	...	...	3
20,319	27,089	...	...	...	...	...	...	...	...	...	...	19
**6,705	**9,167	...	...	...	...	...	...	...	...	...	...	31
14,627	11,117	...	...	...	...	...	...	...	...	...	...	33
9,303	49,748	...	...	...	...	...	...	...	...	...	...	34
129	2,014	...	...	...	...	...	...	...	...	...	...	28
37,757	5,30,108	...	...	5	134	...	...	...	...	5	134	36
**16,912	**24,958	...	...	...	...	...	...	...	...	...	...	37
**7,253	**9,803	...	...	...	...	...	...	...	...	...	...	38
**12,071	**63,218	...	...	...	...	...	...	...	...	...	...	39
34,875,496	321,08,46,743	20,935	4,23,703	40,248	7,29,703	67,057	6,17,153	3	1,533	(H) 130,229	(H) 18,08,635	
33,120,891	19,89,13,944	24,915	4,18,100	33,688	4,17,744	126,397	6,03,281	6	519	(S) 187,207	(S) 15,17,482	
1,754,815	1,17,31,789	...	5,603	6,582	2,10,959	...	13,921	...	1,034	...	2,91,073	
...	...	3,980	...	...	...	69,340	...	3	...	66,979	...	

main line in cases in which separate statistics have not been maintained.  
of which details by commodities have not been furnished.  
steam boats, which are included in the details.  
as details by commodities have not been furnished.

(S) Including 2,203 tons and Rs. 77,869 of live stock on the Madras railway not included in the details.  
(H) Including 1,935 tons and Rs. 97,424 of live stock on the Madras railway not included in the details.

Appendix 18.  
Analysis.

APPEN  
(Appendix 46)

Analysis of working of each railway

NOTE.—These statistics are no

Serial number.	PARTICULARS.	5' 6"											
		GAUGE.											
		Number	1(a)	2(a)	3(a) to (f)	4(a)	5(a) to (d)	6(a) to (e)	7(a) to (c)	8(a) & (b)	9(a) to (e)	10(a) & (b)	11(a) to (c)
Calendar year 1908.	Bengal Central.	Bengal Nagpur.	Bombay, Baroda and Central India.	Eastern Bengal.	East Indian.	Great Indian Peninsula.	Madras.	The Nizam's Guaranteed State.	North Western.	Ondh and Rohilkhand.	Rajputana Malwa.		
1	DESCRIPTION OF RAILWAY WORKED. Gauge of railway . . . . .	...	5' 6"	5' 6"	5' 6"	5' 6"	5' 6"	5' 6"	5' 6"	5' 6"	5' 6"	5' 6"	
2	Mileage worked . . . . Miles	...	198.89	1667.01	825.12	277.93	2281.64	2745.46	1399.51	354.70	3743.57	1106.07	1871.43
3	Number of stations . . . No.	...	27	226	127	82	360	374	287	45	516	169	272
4	Total length of the following gradients:— (a) $\frac{1}{20}$ and less . . . . Miles	...	...	...	...	...	5.90	*19.31	...	...	71.19	...	3.40
	(b) $\frac{1}{11}$ to $\frac{1}{15}$ . . . . .	...	...	0.15	1.32	...	16.78	*2.62	22.84	...	84.97	9.30	0.23
	(c) $\frac{1}{11}$ to $\frac{1}{10}$ . . . . .	...	...	36.67	0.50	...	40.27	*61.90	49.60	79.19	134.21	6.41	18.75
	(d) $\frac{1}{11}$ to $\frac{1}{10}$ . . . . .	...	...	553.10	168.04	...	150.25	*549.90	289.63	110.99	110.23	19.15	309.57
	(e) $\frac{1}{11}$ to $\frac{1}{10}$ . . . . .	...	...	140.20	47.97	...	131.68	*210.95	156.57	18.22	116.94	22.56	155.83
5	Steepest gradient worked— (a) Inclination . . . . .	...	...	$\frac{1}{20}$	$\frac{1}{15}$	$\frac{1}{15}$	$\frac{1}{10}$	$\frac{1}{10}$	* $\frac{1}{11}$	$\frac{1}{15}$	$\frac{1}{11}$	$\frac{1}{11}$	$\frac{1}{15}$
	(b) Length . . . . Miles	...	...	0.57	1.32	2.00	13.94	*5.99	0.80	2.52	5.60	2.25	3.40
FINANCIAL RESULTS.		Calendar year 1908 by half-years.											
6	Percentage of net earnings (including steam boat traffic) for each half-year on capital outlay . Per cent.	1st half	1.36	1.77	3.82	1.57	4.97	*5.16	2.14	\$3.44	2.19	3.39	4.69
		2nd "	2.49	1.25	2.17	4.80	4.48	*2.52	1.43	\$2.48	2.60	1.86	2.92
7	Percentage of net earnings for each half-year on paid up capital . . . . . Per cent.	1st half	1.39	1.71	3.39	...	...	†2.19	2.18	\$2.90	...	...	...
		2nd "	2.54	1.26	1.99	...	...	†1.55	1.51	\$2.11	...	...	...
OUTLAY EARNINGS AND EXPENSES. (Exclusive of Steam-boat Services.)													
	Capital outlay per mile open . Rs.	1st half	1,02,595	1,31,573	1,96,233	2,71,417	2,23,864	11,94,100	1,36,661	\$1,27,449	1,44,116	1,15,885	76,914
		2nd "	1,02,816	1,34,031	1,87,617	2,84,472	2,25,568	11,94,312	1,38,269	\$1,28,554	1,44,268	1,19,994	75,792
9	Total earnings per mile open per week . . . . .	1st half	172	192	536	536	648	476	249	288	263	265	257
		2nd "	246	164	382	878	601	313	227	213	278	203	200
10	Total working expenses per mile open per week . . . . .	1st half	122	96	238	369	214	206	130	119	137	110	115
		2nd "	155	95	213	342	207	185	145	91	129	115	112
11	Total earnings per train-mile . . . . .	1st half	3.72	3.63	7.09	4.08	4.45	4.07	3.89	4.85	3.62	3.60	4.18
		2nd "	3.33	3.12	5.76	5.26	4.47	3.41	3.59	4.41	3.50	2.83	3.06
12	Total working expenses per train-mile . . . . .	1st half	2.22	1.82	3.15	2.81	1.47	1.76	2.03	2.00	1.89	1.50	1.87
		2nd "	2.10	1.81	3.21	2.05	1.54	1.98	2.30	1.87	1.62	1.60	2.05
13	Net earnings per train-mile . . . . .	1st half	0.90	1.81	3.94	1.27	2.98	2.31	1.86	2.85	1.73	2.10	2.31
		2nd "	1.23	1.81	2.55	3.21	2.93	1.43	1.29	2.54	1.88	1.23	1.61
14	Cost per 1,000 gross ton miles moved (freight and dead-weight) . . . . .	1st half	10.27	4.99	7.31	8.20	3.32	5.01	6.03	4.88	5.50	3.84	7.41
		2nd "	7.23	5.33	8.77	4.94	3.20	6.06	7.45	4.55	4.61	4.87	8.93
15	Percentage of total working expenses on total earnings . Per cent.	1st half	71.04	50.18	44.39	68.84	38.01	43.27	52.20	41.28	52.06	41.65	44.68
		2nd "	63.09	57.99	55.80	38.95	34.47	58.10	63.96	42.48	46.43	56.58	56.11
16	Percentage of total working expenses on total earnings, excluding from both sides of the account of the charges for carriage of revenue stores . . . . . Per cent.	1st half	70.35	48.50	43.87	70.16	31.48	41.89	51.22	40.67	50.20	39.40	48.74
		2nd "	62.92	56.32	55.52	38.70	32.98	56.64	63.11	41.42	44.52	54.64	55.30
17	(Inclusive of Steam-boat Services.) Percentage of total working expenses on total earnings (for details, see items 123-29) . Per cent.	1st half	71.04	50.99	44.39	68.84	33.20	43.27	52.30	41.28	52.09	41.65	44.68
		2nd "	63.09	58.83	55.80	38.95	34.62	58.10	63.96	42.48	46.46	56.58	56.11

\* Great Indian Peninsula railway only. The figures for the  
† Indian Midland railway only.  
‡ Great Indian Peninsula railway only. The figures for the  
§ Nizam's guaranteed State railway only.  
¶ Calculated on the mileage, excluding the dock estates and

**DIX 18.**  
Report for 1902.)  
(by systems) during each half-year of 1903.

**Appendix 18.**  
Analysis.

prepared by the railways not shown.

3' 3 3/4"												2' 6"			Gaugw.	
4 (b) to (d)	8 (c)	11 (a)	11 (b)	12 (A) to (c)	14 (a) to (d)	15 (a)	18 (a) to (c)	19 (a) & (b)	20 (a) to (e)	21 (a) to (h)	22 (a)	2 (b)	2 (d)	9 (f) & (g)	Number.	Serial number.
Eastern Bengal.	Hyderabad Godavari Valley.	Assam Bengal.	Non-khali (Bengal).	Bengal and North-Western.	Lhavnagar-Gondal-Jannagad-Porbandar.	Burma.	Jodhpur Bikaner.	Rohilkhand and Kumaon.	South Indian.	South-ern Maharashtra.	Udaipur-Chitor.	Jubbulpore Gondia extension.	Raipur-Dhamtari.	Khoshalgarh-Kohat-Thal and Nowshera-Durgai.	Calendar year 1903.	
3' 3 3/4"	3' 3 3/4"	3' 5 3/4"	3' 3 3/4"	3' 3 3/4"	3' 3 3/4"	3' 3 3/4"	2' 3 3/4"	3' 3 3/4"	3' 3 3/4"	3' 3 3/4"	3' 3 3/4"	2' 6"	2' 6"	2' 6"	...	1
732.14	391.42	635.88	19.24	1417.96	455.45	1323.19	824.27	280.09	1248.81	1646.20	68.72	54.39	56.24	116.56	...	2
120	48	92	6	251	64	213	81	47	220	230	7	8	8	19	...	3
0.87	...	...	...	...	1.88	64.52	...	...	...	15.40	...	...	...	0.90	...	4
0.64	...	2.07	...	...	0.28	81.83	...	6.41	...	48.92	...	5.04	...	...	...	5
2.05	...	6.98	...	0.17	1.68	47.78	...	8.56	125.19	537.07	1.10	12.30	...	48.62	...	6
20.81	221.78	82.22	7.45	2.88	123.76	155.52	165.92	4.40	227.85	250.85	30.75	14.24	18.60	35.94	...	7
14.65	13.95	28.55	0.67	2.15	64.74	107.78	59.59	6.83	100.41	95.69	6.98	2.57	1.95	20.49	...	8
1.81	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	...	9
0.87	5.41	1.38	0.58	6.70	1.83	9.81	2.31	3.00	4.22	15.40	0.46	5.04	2.41	9.43	...	10
1.98	2.69	0.18	...	3.72	2.66	2.54	4.45	4.82	4.54	1.51	1.98	0.55	1.83	-0.85	1st half	} 6
3.75	0.70	0.39	0.14	2.65	1.63	1.49	2.28	2.73	4.00	1.05	1.28	0.11	0.49	-0.91	2nd "	
...	2.62	...	...	...	...	2.54	...	...	...	...	...	0.55	1.33	...	1st half	} 7
...	0.68	...	...	...	...	1.49	...	...	...	...	...	0.05	0.49	...	2nd "	
93,969	66,009	1,26,206	...	78,923	49,873	93,220	25,227	46,050	68,869	85,558	30,701	39,025	24,773	58,412	1st half	} 8
94,758	66,254	1,25,324	66,377	79,517	49,902	94,002	25,456	46,344	69,263	85,687	30,701	53,995	24,823	59,359	2nd "	
176	131	66	192	172	96	219	73	135	200	119	56	67	29	39	1st half	} 9
238	87	78	31	142	68	176	55	113	197	104	45	12	22	42	2nd "	
102	61	57	135	68	45	119	30	58	75	69	33	19	17	47	1st half	} 10
97	69	58	27	63	37	119	33	59	84	69	31	9	18	61	2nd "	
2.93	3.01	2.42	2.04	2.80	4.03	3.41	3.27	3.14	3.43	2.80	3.82	21.38	1.57	10.01	1st half	} 11
3.51	2.24	3.28	2.10	3.69	3.49	2.87	2.46	2.64	3.82	2.55	3.04	3.40	1.07	0.92	2nd "	
1.70	1.43	2.10	2.27	1.07	1.69	1.85	1.92	1.84	1.29	1.62	2.23	5.98	0.89	1.24	1st half	} 12
1.46	1.81	2.47	1.86	1.18	1.69	1.94	1.45	1.37	1.42	1.69	2.07	2.72	0.85	1.36	2nd "	
1.23	1.59	0.82	-0.21	1.82	2.14	1.56	1.95	1.66	2.14	1.18	1.59	15.40	0.68	-0.23	1st half	} 13
2.05	0.47	0.81	0.24	1.51	1.60	0.93	1.01	1.27	1.90	0.86	0.97	0.68	0.22	-0.44	2nd "	
8.74	6.97	11.23	16.03	4.71	9.77	8.93	6.02	6.89	6.67	3.38	11.80	13.98	12.61	20.80	1st half	} 14
7.29	9.64	12.36	12.57	4.92	10.83	9.38	7.76	7.98	7.25	9.00	12.13	27.72	15.50	23.74	2nd "	
58.00	47.02	86.64	110.86	37.90	46.88	54.36	40.30	43.58	37.71	57.76	58.38	27.99	56.68	122.97	1st half	} 15
41.68	79.41	75.18	88.89	43.93	54.06	67.73	58.92	52.01	42.69	66.20	67.98	79.95	79.09	147.37	2nd "	
53.83	46.72	86.42	110.96	38.08	46.57	53.52	38.98	41.95	36.94	56.37	53.31	27.99	54.59	123.32	1st half	} 16
39.78	78.09	74.68	83.39	43.67	53.58	66.85	58.75	51.30	41.76	64.78	67.97	78.49	75.91	149.13	2nd "	
62.17	47.02	86.72	110.36	37.25	46.83	56.19	40.30	42.15	37.71	57.76	...	27.99	56.68	127.46	1st half	} 17
44.33	79.41	75.41	88.39	44.18	54.06	68.35	58.92	51.52	43.69	66.20	...	79.95	79.09	151.46	2nd "	

Indian Midland railway for 1st and 2nd halves were 2.54 and 1.25 respectively.

Indian Midland railway for 1st and 2nd halves were 1,34,538 and 1,36,512, respectively.

private lines constructed and maintained by the Native States as separate undertakings.





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Report for 1902)

(by systems) during each half-year of 1903—contd.

prepared by the railways not shown.

3' 34"												2' 6"			Gauges.
4 (b) to (d).	8 (c)	11 (a)	11 (b)	12 (a) to (c)	14 (a) to (d)	15 (a)	18 (a) to (c)	19 (a) and (b)	20 (a) to (c)	21 (a) to (h)	22 (a)	2 (b)	2 (d)	9 (f) & (g)	Number.
Eastern Bengal.	Hyderabad Godavari Valley.	Assam-Bengal.	Noakhali (Bengal).	Bengal and North-Western.	Bhavnagar-Gondal-Junagadh-Porbandar.	Burma.	Jodhpur-Bikaner.	Rohilkhand and Kumaon.	South Indian.	Southern Mahratta.	Udaipur-Chitor.	Jubbulpore-Gondia extension.	Raipur-Dhamtari.	Khushalgarh-Kohat-Thal and Nowshera-Durgai.	Calendar year 1903 by half-years.
18,90 17,87	5,77 6,66	8,68 8,74	5 22	23,05 19,79	5,14 4,15	39,42 40,20	6,08 6,74	4,26 3,96	22,95 25,85	28,79 28,60	56 53	6 18	24 25	124 208	1st half 2nd "
6,87 5,86	2,17 3,28	4,23 4,51	4 15	8,72 9,53	2,20 2,60	15,08 17,43	2,84 3,15	1,39 1,69	10,57 12,15	9,81 10,39	37 40	...	9 12	68 90	1st half 2nd "
12,02 12,20	3,60 3,38	4,45 4,23	2 7	14,93 10,25	2,94 1,55	24,35 22,76	8,74 8,59	2,87 2,27	12,98 13,70	18,99 18,21	19 13	6 18	14 13	56 118	1st half 2nd "
15,48 17,27	8,97 8,69	6,35 5,63	4 18	25,88 26,59	5,37 5,13	35,07 31,48	5,65 5,08	3,88 3,78	34,16 34,89	18,47 17,37	57 52	...	21 19	69 81	1st half 2nd "
535 549	163 172	187 173	2 8	1,107 1,094	195 158	893 956	203 241	148 158	948 995	717 709	16 19	...	15 18	51 62	1st half 2nd "
2,89 3,15	2,43 2,15	3,39 3,26	2,32 2,36	2,33 2,43	3,39 3,25	3,93 3,29	2,79 2,09	2,62 2,39	3,60 3,51	2,58 2,45	3,50 2,72	...	1,45 1,02	1,34 1,29	1st half 2nd "
495 515	208 156	176 174	... 2	484 469	151 158	1,113 1,050	202 188	140 147	1,061 939	961 785	30 16	...	3 2	49 58	1st half 2nd "
1,588 1,730	1,182 1,095	340 358	2 10	1,024 1,068	1,029 1,026	3,568 3,590	756 733	625 803	3,621 3,847	2,962 2,652	50 50	...	7 6	29 46	1st half 2nd "
5,047 7,921	...	165 178	3 6	3,580 4,030	1,301 1,294	...	...	284 255	...	...	72 101	...	19 12	...	1st half 2nd "
93,724 99,055	29,636 28,970	35,239 30,736	2,51 1,068	222,037 225,465	29,373 28,233	195,956 177,774	42,303 28,400	25,754 22,731	285,116 293,392	191,980 124,161	4,949 3,981	...	1,247 1,089	5,070 5,969	1st half 2nd "
101,444 109,211	31,021 30,222	35,920 31,446	2,56 1,086	227,078 231,052	31,855 30,711	203,637 182,414	43,260 39,321	26,803 23,937	289,798 298,178	195,903 127,598	4,501 4,148	...	1,275 1,110	5,108 6,073	1st half 2nd "
596 861	284 168	239 246	2 1	617 886	201 169	643 919	412 254	132 153	634 670	1,055 1,006	33 26	...	4 4	20 20	1st half 2nd "
13,80 13,77	10,30 10,81	14,90 15,11	16,45 14,31	12,50 9,51	11,41 11,22	15,57 15,48	14,07 13,19	28,27 27,68	11,83 11,73	14,03 15,40	17,81 17,99	...	15,64 15,15	11,48 11,11	1st half 2nd "
6,45 6,10	4,56 4,53	7,24 7,68	7,91 7,74	5,72 5,58	5,63 5,63	7,93 7,53	6,00 6,00	8,79 8,97	5,99 5,91	6,08 6,08	8,99 8,98	...	7,20 6,84	5,49 5,42	1st half 2nd "
3,12 3,03	...	4,49 4,47	4,50 4,47	3,08 2,91	4,00 4,00	...	...	4,00 4,01	...	...	3,00 3,00	...	4,50 4,50	...	1st half 2nd "
2,50 2,50	2,00 2,00	3,00 3,00	3,00 3,00	2,00 2,00	2,75 2,75	3,01 2,98	2,05 2,06	2,19 2,20	2,05 2,05	2,09 2,10	1,99 1,99	...	3,00 3,00	2,25 2,25	1st half 2nd "
2,65 2,65	2,15 2,14	3,10 3,18	3,07 3,07	2,05 2,05	2,93 2,94	3,17 3,14	2,15 2,19	2,48 2,60	2,14 2,13	2,26 2,26	2,19 2,16	...	3,07 3,07	2,36 2,36	1st half 2nd "
47,64 49,16	33,09 37,15	43,12 39,99	60,61 55,24	50,48 42,50	48,00 48,19	48,77 34,47	34,39 43,09	60,27 67,80	58,01 50,79	44,72 44,69	29,65 34,36	...	44,04 43,00	58,77 58,05	1st half 2nd "

and sundry receipts, and leaving only the balance of payments, to other lines for mileage, etc.

converted into tons at the following rates, viz.:—

- 0.10 ton.
- 0.08 "
- 0.06 "

other coaching trains.  
mail trains.  
Cawnpore-Burhwal link.

Appendix 18.  
Analysis.

APPEN  
(Appendix 46 in  
Analysis of working of each railway  
NOTE.—These statistics are not

Serial number.	PARTICULARS.	GAUGE.	5' 6"											
			Number.	1 (a)	2 (a)	3 (a) to (f).	4 (a)	5 (a) to (d)	6 (a) to (e)	7 (a) to (c)	8 (a) & (b)	9 (a) to (e)	10 (a) & (b)	11 (g) to (h)
			Calendar year 1903 by half-years.	Bengal Central	Bengal-Nagpur.	Bombay, Baroda and Central India.	Eastern Bengal.	East Indian.	Great Indian Peninsula.	Madras	The Nizam's Guaranteed State.	North Western.	Oudh and Rohilkhand.	Rajputana-Malwa.
COACHING TRAFFIC—contd.														
UNITS AND UNIT-MILEAGE—concl'd.														
Average number of units in a train—														
36	1st class . . . . . No.	1st half	0.38	1.31	2.03	1.76	1.78	2.23	2.44	2.67	1.44	1.54	1.36	
			2nd "	0.43	1.19	1.71	1.39	1.35	1.99	1.89	1.77	1.06	1.12	0.73
37	2nd " . . . . . "	1st half	1.97	2.83	13.13	4.13	4.61	9.39	7.74	15.51	3.83	4.67	8.60	
			2nd "	1.21	3.13	10.79	3.33	3.78	7.82	8.45	12.22	3.11	3.54	2.82
38	3rd or intermediate class "	1st half	8.02	5.86	23.63	21.10	15.20	13.09	1.56	244.26	13.39	14.58	10.46	
			2nd "	10.39	5.82	22.64	20.32	15.30	13.11		1.26	11.15	13.64	8.56
39	4th or lowest " "	1st half	142.85	204.02	193.20	176.06	190.24	107.29	230.09	199.82	177.83	150.60	241.90	
			2nd "	152.40	199.61	175.02	148.24	188.99	106.64		213.92	141.97	121.48	203.99
40	Total passenger units "	1st half	153.17	214.02	332.09	203.05	211.83	191.99	241.83	262.44	196.49	171.39	257.32	
			2nd "	166.02	209.75	210.16	173.83	203.42	129.56	225.52	213.81	157.29	139.78	222.10
41	Other coaching traffic Tons	1st half	0.94	1.70	3.12	1.35	3.45	2.73	2.38	3.32	1.89	1.52	2.38	
			2nd "	1.09	1.00	3.01	1.95	3.05	2.31	2.02	1.98	2.30	1.14	1.90
VEHICLES AND VEHICLE-MILEAGE—														
Number of coaching vehicles (in thousands, hauled one mile—														
42	1st class . . . . . Vehicle-miles	1st half	119	1,294	854	617	5,534	4,595	1,413	327	3,564	1,687	2,100	
			2nd "	97	1,306	843	592	5,237	4,658	1,368	348	3,573	1,739	1,938
43	2nd " . . . . . "	1st half	151	1,226	1,738	614	4,889	5,555	1,589	362	3,457	1,384	1,959	
			2nd "	143	1,268	1,814	566	4,723	5,664	1,597	375	3,669	1,542	1,918
44	3rd or intermediate class "	1st half	174	1,002	902	1,209	4,932	3,344	271	1,672	4,272	1,798	1,064	
			2nd "	169	1,135	927	1,248	4,984	3,454		267	4,577	1,507	1,006
45	4th or lowest " "	1st half	976	10,202	7,074	4,253	20,902	17,736	9,461	1,581	26,621	8,663	18,350	
			2nd "	953	9,131	7,020	4,191	20,666	18,620		9,313	23,600	9,391	20,049
46	Other vehicles "	1st half	214	984	1,787	966	5,487	5,761	1,263	294	2,846	762	1,482	
			2nd "	251	939	1,913	1,018	4,667	5,856	1,192	274	3,128	760	1,190
47	Brake-vans "	1st half	191	1,900	1,191	586	5,810	5,907	2,116	359	5,642	3,028	3,495	
			2nd "	155	1,899	1,238	497	5,688	5,907	2,149	355	6,142	2,567	3,712
48	Total . . . . . "	1st half	1,825	16,607	13,536	8,195	56,554	42,899	16,112	3,014	46,403	16,322	28,451	
			2nd "	1,769	15,728	13,756	8,112	55,014	44,163	16,408	2,933	49,709	17,906	29,813
Average number of vehicles in a coaching train—														
49	1st class . . . . . No.	1st half	0.81	1.33	0.98	1.10	1.62	1.38	1.41	1.06	1.16	1.41	1.78	
			2nd "	0.71	1.34	0.93	1.01	1.58	1.59	1.33	1.15	0.99	1.28	1.43
50	2nd " . . . . . "	1st half	1.04	1.26	1.99	1.09	1.43	1.67	1.56	1.17	1.12	1.16	1.66	
			2nd "	1.06	1.30	2.00	0.96	1.44	1.69	1.54	1.23	1.03	1.14	1.41
51	3rd or intermediate class "	1st half	1.20	1.03	1.03	2.15	1.45	*1.00	0.27	5.41	1.33	1.51	0.90	
			2nd "	1.25	1.17	1.02	2.13	1.50	*1.03		0.26	1.27	1.41	0.74
52	4th or lowest " "	1st half	6.70	10.47	8.09	7.56	8.77	75.33	9.44	5.20	8.63	7.25	15.53	
			2nd "	7.03	9.38	7.72	7.15	8.93	75.55		9.44	7.95	6.92	14.73
53	Other vehicles "	1st half	1.47	1.00	2.04	1.71	1.81	1.73	1.26	0.95	0.92	0.64	1.26	
			2nd "	1.85	1.02	2.10	1.74	1.41	1.75	1.15	0.90	0.87	0.56	0.88
54	Brake-vans "	1st half	1.31	1.95	1.35	0.95	1.70	1.77	2.11	1.16	1.63	1.70	2.96	
			2nd "	1.15	1.95	1.36	0.85	1.71	1.76	2.07	1.17	1.71	1.89	2.73
55	Total . . . . . "	1st half	12.53	17.04	15.48	14.56	16.88	12.83	16.07	9.75	15.04	13.67	24.09	
			2nd "	13.05	16.16	15.13	13.84	16.67	13.17	15.79	9.65	13.82	13.20	21.91
Average earnings per coaching vehicle per mile—														
56	1st class . . . . . Pies	1st half	5.66	14.92	21.84	23.11	16.14	17.99	21.07	16.53	13.74	12.80	10.33	
			2nd "	8.53	13.01	19.18	18.57	12.94	16.35	17.99	10.46	12.07	10.41	7.06
57	2nd " . . . . . "	1st half	13.80	14.34	20.80	23.60	18.32	22.47	25.16	24.97	15.81	20.54	13.49	
			2nd "	14.98	15.59	27.18	22.49	17.97	20.24	24.04	21.10	14.48	16.67	12.51
58	3rd or intermediate class "	1st half	23.40	19.90	63.51	28.98	34.06	38.97	25.96	41.18	29.17	29.93	34.70	
			2nd "	29.44	16.31	66.45	28.97	33.48	38.09		22.03	26.45	29.39	34.60
59	4th or lowest " "	1st half	63.95	44.92	53.41	57.97	52.06	43.55	55.05	37.38	46.71	51.43	31.23	
			2nd "	65.05	49.22	52.07	51.59	51.61	41.03		50.34	40.48	42.25	28.63
60	Other vehicles "	1st half	25.95	47.76	45.73	37.70	60.72	54.91	69.63	52.44	77.42	94.56	69.71	
			2nd "	27.37	48.57	39.27	55.40	61.58	47.10	68.21	37.44	82.29	74.90	61.40

DIX 18—continued.

Report for 19(2.)

(by systems) during each half-year of 1903—contd.

prepared by the railways not shown.

Appendix 18.  
Analysis.

3' 3 1/2"												2' 6"			GAUGE	
4 (b) to (d)	8 (c)	11 (a)	11 (b)	12 (a) to (c)	14 (a) to (d)	15 (a)	18 (a) to (c)	19 (a) & (b)	20 (a) to (e)	21 (a) to (h)	22 (a)	2 (b)	2 (d)	9 (f) & (g)	Number.	Serial number.
Eastern Bengal	Hyderabad-Godavari Valley.	Assam Bengal	Non-khali (Bengal)	Bengal and North-Western.	Bhavnagar-Gondal-Junnagar-Forbendar.	Burma.	Jodhpur-Bikaner.	Rohilkund and Kumaon.	South Indian.	Southern Mahratta.	Udaipur-Chitor.	Jubbulpore-Gondia extension.	Raipur-Dhamtari	Khushalgarh-Kohat-Thal and Nowshera-Durgai.	Calendar year 1903 by half-years.	
0.91 0.94	1.24 0.91	0.94 1.01	0.07 0.23	0.89 0.45	1.12 1.00	1.25 1.10	1.00 0.78	0.94 0.93	1.12 0.94	1.34 1.11	1.84 0.87	...	0.20 0.13	0.96 0.93	1st half 2nd "	36
2.97 8.13	7.21 6.87	1.82 2.07	1.31 1.39	0.92 0.98	7.65 6.50	4.00 3.75	3.72 3.04	4.22 5.08	3.82 3.87	4.13 3.74	3.08 2.65	...	0.48 0.35	0.56 0.78	1st half 2nd "	
10.55 14.44	...	0.88 1.02	1.42 0.82	3.23 3.69	9.66 8.21	...	...	1.91 1.61	...	...	4.39 5.35	...	1.26 0.67	...	1st half 2nd "	38
175.18 180.55	181.33 168.66	198.45 177.80	140.28 141.53	200.51 206.15	218.17 179.08	222.89 185.95	208.76 159.10	173.66 143.67	300.64 295.01	184.16 175.21	266.37 210.87	...	84.97 59.23	98.58 95.60	1st half 2nd "	
189.61 199.06	189.81 175.94	192.09 181.50	143.18 143.97	205.05 211.27	236.60 194.74	228.14 190.80	213.48 162.92	180.73 151.29	305.58 299.82	189.63 180.06	275.68 219.74	...	86.91 60.38	100.10 97.26	1st half 2nd "	40
1.11 1.57	1.73 0.98	1.25 1.42	0.11 0.19	0.56 0.81	1.49 1.07	0.72 0.96	2.04 1.05	0.89 0.96	0.67 0.67	1.47 1.42	3.01 1.38	...	0.25 0.24	0.39 0.32	1st half 2nd "	
791 743	322 323	321 337	2 7	1,661 1,869	295 274	1,350 1,421	350 373	194 211	1,030 1,081	1,197 1,221	24 20	...	5 5	39 50	1st half 2nd "	42
748 625	321 304	308 323	1 6	1,638 1,658	354 328	1,700 1,762	335 347	192 209	1,310 1,312	1,220 1,159	24 19	...	5 5	12 18	1st half 2nd "	
1,274 1,252	...	287 234	3 11	1,808 1,860	261 291	...	...	125 117	...	...	28 29	...	...	...	1st half 2nd "	44
5,846 5,617	1,465 1,768	2,340 2,177	18 79	15,635 16,903	1,833 2,000	12,024 13,488	2,852 2,899	1,837 1,824	13,754 14,775	9,078 9,002	228 240	...	105 109	479 537	1st half 2nd "	
838 761	147 129	390 407	...	429 430	127 126	1,749 935	996 314	58 55	1,345 1,384	927 901	8 5	...	5 5	27 33	1st half 2nd "	46
546 581	298 288	222 223	2 10	21,371 2,220	408 419	806 1,263	811 822	276 307	1,253 1,230	1,195 1,226	49 52	...	26 27	62 71	1st half 2nd "	
10,046 9,560	2,554 2,812	3,868 3,701	26 114	23,674 24,951	3,278 3,438	17,729 18,868	4,645 4,754	2,682 2,723	18,742 19,782	13,617 13,509	361 365	...	145 151	619 709	1st half 2nd "	48
1.48 1.35	1.12 1.14	1.71 1.95	0.84 0.87	1.69 1.71	2.20 1.74	1.51 1.49	1.73 1.54	1.30 1.33	1.14 1.09	1.67 1.72	1.45 1.06	...	0.31 0.29	0.77 0.80	1st half 2nd "	
1.40 1.14	1.11 1.07	1.65 1.87	0.73 0.86	1.48 1.52	2.63 2.08	1.90 1.84	1.65 1.44	1.30 1.32	1.38 1.32	1.70 1.64	1.49 1.04	...	0.31 0.29	0.23 0.29	1st half 2nd "	50
3.38 2.28	...	1.53 1.36	1.42 1.52	1.63 1.70	1.94 1.85	...	...	0.84 0.74	...	...	1.73 1.57	...	...	...	1st half 2nd "	
10.93 10.24	5.07 6.24	12.51 12.59	9.91 10.45	14.12 15.46	19.61 12.68	13.47 14.11	14.08 12.01	12.39 11.53	14.50 14.85	12.67 12.70	13.95 12.72	...	7.16 5.95	9.38 8.60	1st half 2nd "	52
1.57 1.39	0.51 0.46	2.09 2.36	0.03 0.01	0.98 0.89	0.94 0.80	1.06 0.98	1.46 1.30	0.39 0.35	1.42 1.39	1.29 1.27	0.47 0.25	...	0.33 0.27	0.53 0.52	1st half 2nd "	
1.02 1.06	1.03 1.02	1.19 1.28	1.33 1.35	2.08 2.03	3.08 2.66	1.02 1.32	4.00 3.40	1.86 1.94	1.32 1.24	1.67 1.73	2.99 2.78	...	1.78 1.44	1.22 1.15	1st half 2nd "	54
18.76 17.46	8.84 9.93	20.68 21.41	14.26 15.06	21.38 22.81	24.35 21.81	19.86 19.74	22.92 19.69	18.08 17.21	19.78 19.89	19.00 19.06	22.08 19.37	...	9.89 8.24	12.13 11.36	1st half 2nd "	
8.44 9.54	6.49 5.23	8.19 7.79	1.40 3.78	2.92 2.49	5.86 6.47	12.84 11.44	8.11 6.64	18.90 19.37	11.63 10.19	11.27 9.90	22.68 14.70	...	10.19 6.93	14.32 12.85	1st half 2nd "	56
13.68 16.77	16.79 16.32	8.11 8.51	14.14 12.50	3.53 3.60	16.38 17.59	16.64 15.35	13.52 12.95	28.58 34.50	16.55 17.34	14.79 13.92	18.58 22.90	...	11.16 8.22	13.46 13.60	1st half 2nd "	
13.82 19.16	...	2.58 3.39	4.49 2.43	6.09 6.80	19.90 17.76	...	...	9.11 8.72	...	...	7.58 10.18	...	...	...	1st half 2nd "	58
40.08 44.08	40.47 32.76	45.16 43.32	42.51 40.64	28.36 26.65	44.07 33.82	49.86 39.25	30.45 27.34	30.64 27.42	42.53 40.75	30.40 28.91	38.04 33.05	...	36.37 30.40	23.64 25.01	1st half 2nd "	
33.91 55.63	68.89 48.63	26.44 24.17	...	72.66 87.48	75.78 64.39	16.09 33.89	47.94 34.89	136.99 186.60	27.33 24.58	50.90 49.91	125.21 186.92	...	33.72 37.08	41.64 35.68	1st half 2nd "	60

mail trains.

Appendix 18.  
Analysis.

APPEN

(Appendix 46)

Analysis of working of each railway

NOTE.—These statistics are not

Serial number.	PARTICULARS.	GAUGE. Number	5' 6"										
			1 (a)	2 (a)	3 (a) to (f)	4 (a)	5 (a) to (d)	6 (a) to (e)	7 (a) to (c)	8 (a) & (b)	9 (a) to (e)	10 (a) & (b)	11 (g) to (h)
			Bengal Central	Bengal Nagpur	Bombay, Baroda and Central India.	Eastern Bengal.	East Indian.	Great Indian Peninsula.	Madras.	The Nizam's Guaranteed State.	North Western.	Ondh and Rohilkhand	Rajputana-Malwa.
COACHING TRAFFIC—contd. VEHICLES AND VEHICLES-MILEAGE— concl'd. Carrying capacity hauled one mile (excluding brakes) (in thousands)—													
61	1st class . . . . . Seats	1st half	2,132	16,630	19,647	13,634	79,368	59,761	12,836	4,875	53,048	37,621	21,360
		2nd "	1,853	11,673	20,985	13,430	73,906	63,543	12,625	4,916	54,411	38,176	18,569
62	2nd " . . . . . "	1st half	3,277	20,689	74,184	15,624	110,114	143,989	27,059	7,746	62,673	31,802	23,514
		2nd "	2,973	18,422	77,439	14,291	109,080	181,348	27,285	8,256	72,808	33,084	23,020
63	3rd or intermediate class . . . . . "	1st half	9,638	37,087	45,916	61,034	235,323	*167,558	8,659	94,965	145,970	62,422	26,758
		2nd "	9,296	38,098	44,069	58,383	218,496	*187,456	8,547		156,962	66,299	25,214
64	4th or lowest class . . . . . "	1st half	54,314	561,428	398,721	245,067	1,752,404	+896,476	345,401	88,507	1,401,897	469,850	605,049
		2nd "	52,925	495,370	390,634	241,298	1,731,009	+942,488	561,863		1,510,764	517,296	656,810
65	Other vehicles . . . . . Tons	1st half	3,437	9,732	7,570	8,784	58,239	29,870	5,973	5,153	33,830	18,952	8,330
		2nd "	3,913	8,548	9,548	10,016	53,230	30,320	5,560	5,133	48,220	19,979	6,690
Percentage of freight upon capacity hauled—													
66	1st class . . . . . Per cent.	1st half	2.26	7.67	9.25	7.26	7.65	12.44	19.03	7.50	8.39	4.88	7.53
		2nd "	3.16	9.95	7.40	6.05	6.06	10.52	15.54	5.17	7.00	3.99	5.05
67	2nd " . . . . . "	1st half	8.74	18.33	15.54	14.90	14.29	22.03	28.69	27.47	17.22	17.53	18.08
		2nd "	10.07	16.54	12.67	13.85	11.50	19.96	22.17	21.24	15.36	14.26	16.69
68	3rd or intermediate class . . . . . "	1st half	15.12	15.40	45.00	19.46	22.05	*25.99	18.03	35.47	28.30	27.85	46.17
		2nd "	15.89	14.87	46.70	20.91	23.25	*23.46	15.37		25.54	27.90	46.18
69	4th or lowest class . . . . . "	1st half	38.29	35.42	42.90	40.44	37.03	+39.86	42.30	32.41	39.15	38.36	47.23
		2nd "	39.06	39.23	40.73	36.01	36.21	+37.95	29.56		33.80	31.86	45.51
70	Other vehicles . . . . . "	1st half	8.99	11.00	36.05	8.67	20.19	30.42	40.01	8.83	17.20	9.56	36.53
		2nd "	8.76	11.41	28.66	11.39	19.01	25.52	37.77	5.55	17.16	7.72	36.68
WEIGHT OF TRAIN AND TON-MILEAGE. Gross ton-mileage of all coaching trains (in thousands)—													
71	Freight . . . . .	1st half	1,483	13,693	15,205	7,706	55,667	36,387	17,190	2,672	42,619	14,277	21,430
		2nd "	1,506	13,334	14,456	7,327	52,260	34,602	16,413	2,171	42,592	13,077	20,839
72	Dead weight . . . . .	1st half	28,244	2,41,346	209,251	126,307	925,436	710,539	282,016	40,727	678,262	269,230	211,108
		2nd "	26,495	2,32,504	214,757	130,296	911,305	733,369	237,659	40,683	746,905	296,660	215,141
73	Total . . . . .	1st half	29,727	255,039	224,456	134,013	981,103	746,926	249,207	43,299	720,896	283,506	232,533
		2nd "	28,001	246,838	229,213	137,623	963,566	767,971	254,072	42,855	784,497	309,744	235,960
74	Average weight of a coaching train— Freight . . . . . Tons	1st half	10.19	14.05	17.39	13.69	16.32	10.93	17.75	8.61	13.81	11.96	18.14
		2nd "	11.11	13.70	15.90	12.50	15.74	10.32	15.80	7.14	11.84	9.64	15.31
75	Dead weight . . . . . "	1st half	194.00	247.61	239.34	224.38	271.33	218.37	231.42	131.40	219.80	225.52	178.71
		2nd "	195.41	239.36	236.26	222.27	274.54	218.65	228.74	138.88	207.67	218.69	158.08
76	Total . . . . .	1st half	204.19	261.66	256.73	238.07	287.65	231.90	214.57	14.04	233.61	237.48	196.85
		2nd "	206.52	253.56	252.16	234.77	290.28	228.97	244.54	141.02	219.51	228.33	177.39
COST OF WORKING AND PROFIT—													
77	Average cost of hauling a coaching train one mile . . . . . R	1st half	1.60	1.31	1.88	1.95	0.95	1.12	1.57	1.54	1.28	0.91	1.46
		2nd "	1.49	1.35	2.21	1.16	0.96	1.39	1.82	1.36	1.01	1.11	1.56
78	Average cost of hauling a coaching vehicle with its load one mile . . . . . Pies	1st half	27.32	16.62	25.50	27.55	12.32	19.44	21.55	15.27	18.66	14.65	13.25
		2nd "	24.10	18.28	30.62	17.16	12.37	23.36	25.48	14.54	16.02	18.87	15.58
Average cost of hauling a coaching unit one mile—													
79	Per passenger unit . . . . . Pies	1st half	1.80	1.11	1.36	1.60	0.78	1.39	1.15	1.01	1.17	0.97	1.02
		2nd "	1.52	1.16	1.75	1.08	0.80	1.76	1.44	1.11	1.14	1.49	1.27
80	Other traffic per ton . . . . . "	1st half	32.78	12.74	14.52	37.35	5.01	11.81	9.78	9.04	9.11	5.76	7.16
		2nd "	31.61	15.56	18.62	18.36	5.25	16.49	12.53	12.50	6.41	8.72	8.68
81	Average profit on working a coaching train one mile . . . . . R	1st half	1.08	1.67	1.66	1.26	2.51	1.11	1.99	2.21	1.58	1.80	1.90
		2nd "	1.46	1.61	1.04	1.79	2.40	0.73	1.41	1.58	1.35	1.03	1.19
82	1st class . . . . . Pies	1st half	-21.48	-1.70	-3.66	-4.44	3.82	-1.45	0.48	1.26	-4.92	1.85	-2.42
		2nd "	-15.57	-5.27	-11.64	1.41	0.57	-7.01	-7.49	-4.08	-3.95	-8.46	-8.52
83	2nd " . . . . . "	1st half	-13.46	-2.28	5.30	-3.95	6.00	3.08	3.61	9.70	2.85	5.89	0.24
		2nd "	-9.12	-2.69	-3.64	5.33	5.60	-3.12	-1.44	6.56	-1.54	-2.20	-3.07
84	3rd or intermediate class . . . . . "	1st half	-3.92	2.28	43.01	1.43	21.74	*19.53	4.41	25.81	10.51	14.68	21.45
		2nd "	5.34	-1.97	35.63	11.81	21.11	*14.78	-3.45		10.43	10.52	19.02
85	4th or lowest class . . . . . "	1st half	36.63	28.30	27.91	30.42	40.64	+24.71	33.50	22.84	28.05	36.80	17.98
		2nd "	40.95	30.94	21.25	34.43	39.24	+17.67	24.86		24.46	23.38	18.05
86	Other vehicles . . . . . "	1st half	-1.37	28.14	20.23	10.15	48.40	34.87	49.08	37.17	58.78	79.91	56.46
		2nd "	3.27	30.29	8.45	38.24	49.21	23.74	42.78	22.90	66.27	56.03	45.82

DIX 18—continued.  
in Report for 1902.]  
(by systems) during each half-year of 1893—contd.  
prepared by the railways not shown.

3' 3 1/2"												2' 6"			GAUGE.	
4 (b) to (d).	8 (c).	11 (a).	11 (b)	12 (a) to (c)	14 (a) to (d)	15 (a)	18 (a) to (c)	19 (a) & (b)	20 (a) to (e)	21 (a) to (h)	22 (a)	2 (b).	2 (d)	9 (f) & (g)	Number.	Serial number.
Eastern Bengal.	Hyderabad-Godavari Valley.	Assam-Bengal.	Non-khali (Bengal).	Bengal and North-Western.	Bhavnagar-Gondal-Junagad-Porbandar.	Burma.	Jodhpur-Bikaner.	Rohilkhand and Kumaon.	South-Indian.	South-ern Maharashtra.	Udaipur-Chitor.	Jubbulpore-Gondia extension.	Raipur-Dhamtari.	Khushalgarh-Kohat Thal and Nowshera-Durga.	Calendar year 1903 by half-years.	
8,895 8,092	6,187 6,992	8,628 8,810	16 71	17,706 17,598	3,061 2,780	8,285 12,597	3,193 3,556	2,328 2,526	10,362 10,369	9,760 9,960	278 238	...	54 64	355 458	1st half 2nd "	} 61
9,067 7,529	7,507 6,987	8,542 8,727	14 70	25,020 24,852	4,874 4,703	17,028 27,288	4,194 4,308	2,308 2,505	14,290 14,310	15,117 14,323	292 235	...	54 64	140 220	1st half 2nd "	} 62
24,012 23,867	...	7,356 4,986	68 298	40,023 40,773	8,695 8,946	...	...	2,644 2,265	...	...	680 715	...	...	...	1st half 2nd "	} 63
188,390 176,414	65,690 77,599	81,848 77,462	619 2,747	459,856 484,076	53,109 58,128	355,130 408,667	92,341 92,642	60,210 60,192	496,580 467,210	292,616 288,376	6,628 6,950	...	3,216 3,344	10,815 12,044	1st half 2nd "	} 64
3,710 3,608	3,475 3,463	1,213 1,257	...	1,191 1,330	492 519	6,912 3,464	3,723 3,928	302 267	3,158 3,260	2,713 2,648	81 19	...	2 2	222 80	1st half 2nd "	} 65
5.49 6.36	3.28 2.45	4.85 4.56	0.78 2.44	2.45 2.78	4.95 5.68	13.44 8.33	6.32 5.27	5.89 5.83	10.24 9.06	9.85 7.88	11.06 6.90	...	5.44 3.81	13.84 12.65	1st half 2nd "	} 66
17.51 22.84	15.75 15.67	9.60 9.62	16.56 14.95	4.09 4.29	21.12 21.81	20.95 13.16	18.02 17.02	27.10 32.06	25.34 26.88	19.60 18.52	17.22 21.25	...	12.95 10.01	20.45 20.92	1st half 2nd "	} 67
23.52 33.19	...	2.24 3.56	3.74 2.13	8.94 9.88	35.21 32.80	...	...	10.75 11.27	...	...	10.53 14.14	...	39.35 32.94	...	1st half 2nd "	} 68
51.11 56.15	45.11 37.83	43.05 39.68	40.62 38.88	48.28 46.58	55.81 48.57	56.02 43.50	45.81 41.45	42.77 37.77	65.31 62.80	45.10 43.06	65.61 57.27	...	...	46.51 49.56	1st half 2nd "	} 69
16.07 23.87	8.16 4.86	19.72 19.58	...	51.81 66.60	40.80 82.51	9.30 26.54	11.08 6.47	43.63 57.05	20.07 20.54	38.89 37.99	103.54 135.96	...	159.55 179.64	8.89 25.09	1st half 2nd "	} 70
6,794 7,469	2,177 2,010	2,408 2,147	16 67	14,348 14,779	2,198 2,088	12,977 11,978	3,021 2,636	1,758 1,611	18,137 18,675	9,907 8,746	305 276	...	81 71	329 388	1st half 2nd "	} 71
71,921 70,258	29,002 31,996	35,329 34,341	257 1,150	170,644 179,102	20,422 21,997	155,774 173,959	35,782 37,976	18,386 19,596	140,415 148,947	107,759 106,658	2,918 3,039	...	650 726	2,930 3,411	1st half 2nd "	} 72
78,656 77,727	31,179 34,006	37,787 36,488	272 1,217	184,993 193,881	22,560 24,035	168,751 185,937	88,803 40,612	20,154 21,207	158,552 167,622	117,066 115,404	3,218 3,815	...	730 798	3,259 3,798	1st half 2nd "	} 73
12.58 13.61	7.54 7.10	12.88 12.42	2.73 8.87	12.96 13.51	15.36 12.93	14.54 12.53	14.91 10.92	11.85 10.18	19.12 18.78	12.99 12.34	18.69 14.65	...	5.49 3.87	6.44 6.21	1st half 2nd "	} 74
134.43 128.06	100.49 112.97	188.93 198.65	143.35 152.47	154.10 163.76	151.68 139.49	174.51 181.96	176.58 157.94	124.04 123.85	148.06 149.77	150.96 150.51	176.41 161.00	...	44.27 39.50	57.43 54.62	1st half 2nd "	} 75
147.61 141.67	117.97 120.07	201.81 211.07	152.08 161.34	167.06 177.27	167.56 152.42	189.05 194.49	191.49 168.26	135.89 134.08	167.18 168.55	163.35 162.85	197.10 175.85	...	49.76 43.87	63.87 60.83	1st half 2nd "	} 76
1.28 1.03	1.93 1.91	2.26 2.61	7.15 2.03	0.79 0.87	1.64 1.85	1.69 1.82	1.15 1.31	0.94 1.07	1.11 1.22	1.37 1.47	2.27 2.09	...	0.63 0.67	1.33 1.44	1st half 2nd "	} 77
13.89 12.09	18.51 24.94	22.27 24.90	36.18 28.37	7.84 8.06	14.74 16.55	17.21 19.01	11.70 15.39	11.09 13.45	11.60 12.57	15.16 16.24	22.98 24.12	...	14.85 18.99	23.38 27.13	1st half 2nd "	} 78
1.15 0.87	1.27 2.00	2.04 2.46	3.26 2.70	0.72 0.78	1.26 1.55	1.27 1.78	0.89 1.39	0.97 1.81	0.65 0.73	1.27 1.44	1.52 1.78	...	1.33 2.05	2.43 2.71	1st half 2nd "	} 79
24.87 15.80	7.90 15.08	83.07 87.85	...	5.71 3.24	10.89 14.12	47.30 21.76	14.84 22.96	6.18 6.98	23.67 24.95	14.27 15.78	7.95 7.86	...	19.51 25.43	31.93 41.98	1st half 2nd "	} 80
1.61 2.12	1.10 0.24	1.13 0.65	-4.83 0.33	1.54 1.56	2.35 1.60	2.24 1.47	1.64 0.78	1.68 1.32	2.49 2.29	1.21 0.98	1.23 0.63	...	0.62 0.35	0.01 -0.15	1st half 2nd "	} 81
-5.45 -2.55	-12.02 -19.71	-14.06 -17.11	-34.78 -24.59	-4.94 -5.57	-8.88 -10.08	-4.37 -7.57	-3.59 -8.75	7.81 5.92	0.03 -2.38	-3.39 -6.34	-0.20 -9.42	...	-4.66 -12.06	-9.06 -14.28	1st half 2nd "	} 82
-0.21 4.68	-1.72 -8.62	-14.16 -16.39	-22.04 -15.87	-4.26 -4.46	1.64 1.04	-0.57 -3.66	1.82 -2.44	17.49 121.05	4.95 4.77	-0.37 -2.32	-4.30 -1.20	...	-3.69 -10.77	-8.92 -13.53	1st half 2nd "	} 83
-0.07 7.07	...	-19.69 -21.51	-31.69 -25.94	-1.76 -1.76	5.16 1.21	...	...	-1.98 -4.73	...	...	-15.80 -13.94	...	...	...	1st half 2nd "	} 84
26.19 31.99	21.96 7.82	22.89 17.42	6.93 12.27	20.52 18.59	29.33 22.27	32.65 20.24	18.75 11.95	19.55 13.97	30.93 28.18	15.24 12.67	15.16 8.93	...	21.52 11.41	0.26 -2.12	1st half 2nd "	} 85
20.02 49.54	45.38 23.69	4.17 -0.73	...	64.82 79.42	61.04 47.84	-1.12 14.88	36.24 19.50	125.89 173.15	15.73 12.01	35.74 33.67	102.33 162.80	...	18.87 18.09	18.26 8.55	1st half 2nd "	} 86

mail trains.  
other than mail trains.



Serial number.	PARTICULARS.	GAUGE. Num- ber.	5'6"										
			1 (a)	2(a)	3 (a) to (f)	4 (a)	5 (a) to (d)	6 (a) to (e).	7 (a) to (c)	8 (a) & (b)	9 (a) to (e)	10 (a) & (b)	11 (g) to (i)
			Bengal-Central.	Bengal-Nagpur.	Bom- bay, Baroda, and Central India.	Eastern Bengal.	East Indian.	Great Indian Peninsula.	Madras.	The Nizam's Guaran- teed State.	North West- ern.	Oudh and Rohil- khand.	Raj- putana Malwa.
COACHING TRAFFIC—concl'd.													
COST OF WORKING AND PROFIT—concl'd.													
Average profit on working a coaching unit one mile—													
87	Per passenger unit . . . Pies	1st half	1-31	1-35	1-16	1-12	1-89	1-14	1-31	1-30	1-26	1-71	1-15
		2nd "	1-59	1-31	0-83	1-63	1-86	0-74	0-96	1-18	1-29	1-13	0-87
88	Other traffic per ton . . . "	1st half	7-68	28-40	15-42	10-42	23-32	22-61	27-00	24-85	28-77	33-93	26-79
		2nd "	15-12	33-69	8-83	31-05	23-05	19-12	26-19	23-97	24-70	28-18	19-58
GOODS TRAFFIC.													
GROSS RECEIPTS AND TRAIN MILEAGE—(In thousands.)													
89	Receipts from goods traffic . R	1st half	1-25	49-61	75-47	17-83	2-52-53	2-62-67	51-94	20-68	1-62-67	39-72	84-83
		2nd "	4-75	39-53	46-59	43-15	2-31-98	1-53-85	46-70	14-39	1-83-25	27-73	59-41
90	Goods train miles run . . . No.	1st half	58	1-293	667	834	5-027	5-026	1-828	410	3-943	1-022	1-854
		2nd "	131	1-313	448	621	4-479	3-800	1-276	302	4-172	842	1-369
91	Average goods receipts per train-mile . . . R	1st half	2-35	3-84	11-32	4-64	5-02	5-23	3-93	5-04	4-13	3-88	4-58
		2nd "	3-62	3-01	10-41	6-95	5-18	4-66	3-66	4-76	4-89	3-29	4-34
UNITS AND UNIT-MILEAGE.													
(In thousands.)													
92	Tons of goods carried one mile	1st half	3-492	192-908	181-803	53-996	1-140-953	760-310	151-417	61-876	585-733	148-150	239-294
		2nd "	12-188	167-924	112-769	99-628	1-086-490	463-337	131-728	43-977	727-756	109-352	175-286
93	Average sum received for carrying a ton one mile . Pies	1st half	7-02	4-94	7-97	6-34	4-25	6-63	6-59	6-42	5-33	5-15	6-81
		2nd "	7-48	4-52	7-98	8-32	4-10	6-38	6-81	6-28	4-84	4-87	6-51
94	Average number of tons in a train . . . Tons.	1st half	64-41	149-24	272-59	140-51	226-97	151-26	114-44	123-44	143-53	144-90	129-07
		2nd "	92-90	127-93	251-95	180-44	242-59	140-39	108-23	109-92	174-45	129-82	127-99
VEHICLES AND VEHICLE-MILEAGE—													
Number of goods vehicles hauled one mile—													
(In thousands.)													
95	Loaded . . . Vehicle-miles	1st half	579	21-711	20-905	8-017	101-212	93-317	22-284	6-210	73-013	20-825	44-842
		2nd "	1-958	17-940	14-280	13-526	97-341	65-848	20-773	4-112	81-537	15-761	32-248
96	Empty . . . "	1st half	189	10-242	6-538	2-134	51-126	37-309	8-429	3-7-8	3-148	7-182	11-953
		2nd "	1-549	8-466	4-047	6-952	52-250	19-350	7-875	2-610	3-1-942	5-918	8-398
97	Brake vans . . . "	1st half	58	2-626	589	392	4-730	9-505	2-097	721	4-421	1-091	1-600
		2nd "	115	2-577	292	631	4-486	6-375	1-957	511	4-608	814	1-069
98	Total . . . "	1st half	821	34-578	27-982	10-543	157-069	140-132	32-810	10-719	107-588	29-098	58-395
		2nd "	3-622	28-982	18-620	21-103	154-078	91-569	30-105	7-232	121-082	22-488	41-715
Average number of vehicles in a goods train—													
99	Freight vehicles . . . No.	1st half	14-43	24-72	41-15	26-41	30-31	25-89	23-21	19-95	26-16	27-39	30-64
		2nd "	26-73	20-12	40-95	32-48	33-40	25-82	22-06	16-80	27-92	25-73	29-68
100	Brake-vans . . . "	1st half	1-00	2-03	0-81	1-02	0-94	1-89	1-59	1-44	1-12	1-07	0-86
		2nd "	0-88	1-96	0-65	1-01	1-00	1-93	1-53	1-28	1-10	0-97	0-78
101	Total . . . "	1st half	15-43	26-75	41-96	27-43	31-25	27-88	24-80	21-39	27-28	28-46	31-50
		2nd "	27-61	22-08	41-60	33-99	34-40	27-75	23-59	18-08	29-02	26-70	30-46
102	Average earnings per goods vehicle per mile (excluding brakes) . . . Pies.	1st half	31-34	29-81	52-80	33-73	31-83	38-61	32-47	39-70	30-28	27-22	28-68
		2nd "	25-99	28-74	48-81	40-45	29-78	34-67	31-86	41-12	30-21	24-57	28-06
103	Carrying capacity hauled one mile (excluding brakes) . Tons.	1st half	11-114	477-745	354-406	124-818	2-912-679	1-785-507	410-319	137-162	1-401-884	344-293	481-927
		2nd "	51-110	398-256	248-141	258-257	2-131-878	1-195-097	381-414	93-610	1-592-719	269-664	349-033
104	Percentage of freight upon capacity hauled . . . cent.	1st half	30-88	40-38	51-30	43-26	51-56	42-58	38-90	45-11	41-78	43-03	49-65
		2nd "	23-85	42-16	45-45	38-58	50-96	38-77	34-54	46-98	45-89	40-55	50-22
105	Average load of a goods vehicle (including both loaded and empty) per mile . . . Tons.	1st half	4-46	6-04	6-62	5-82	7-49	5-82	4-98	6-19	5-68	5-29	4-21
		2nd "	3-48	6-86	6-15	4-87	7-26	5-44	4-68	6-54	6-25	5-05	4-31
106	Average load of a loaded goods vehicle per mile . . . "	1st half	5-92	8-89	8-70	6-74	11-27	8-15	6-79	9-96	8-02	7-11	5-34
		2nd "	6-23	9-36	7-90	7-87	11-16	7-04	6-34	10-70	8-93	6-94	5-44
WEIGHT OF TRAIN AND TON-MILEAGE—													
Gross ton-mileage of all goods trains—(In thousands.)													
107	Freight . . . Tons.	1st half	3-432	192-908	181-803	53-996	1-140-953	760-310	151-417	61-876	585-733	148-150	239-294
		2nd "	12-188	167-924	114-769	99-628	1-086-490	463-337	131-728	43-977	727-756	109-353	175-286
108	Dead weight . . . "	1st half	9-750	341-448	226-427	102-602	1-458-935	1-363-711	321-821	106-816	1-036-988	285-278	266-459
		2nd "	35-441	304-078	151-721	201-507	1-431-491	907-224	301-525	77-873	1-147-207	224-706	192-794
109	Total . . . "	1st half	13-181	534-357	408-230	156-598	2-599-887	2-122-021	473-038	168-693	1-622-121	433-229	505-754
		2nd "	47-629	472-002	264-490	301-135	2-517-981	1-370-561	483-258	121-850	1-876-968	334-059	368-080

\* Including the Cawnpore

DIX 18—continued.

Report for 1902.)

(by systems) during each half-year of 1903—contd.

prepared by the railways not shown.

3' 3 1/2"												2' 6"			GAUGE.		
4	8 (c)	11 (a)	11 (b)	12 (a) to (c)	14 (a) to (d)	15 (a)	18 (a) to (c)	19 (a) & (b)	20 (a) to (e)	21 (a) to (h)	22(a)	2 (b)	2 (d)	9(f) & (g)	Number.	Serial number.	
(b) to (d)	Hyderabad-Godavari Valley.	Assam Bengal.	Noakhali (Bengal).	Bengal and North-Western.*	Bhavnagar-Gondal-Junagad-Porbandar.	Burma.	Jodhpur-Bikaner.	Rohilkund and Kumaon.	South Indian.	South-eastern Maharastra.	Udaipur-Chitor.	Jubbulpore-Gondia extension.	Raipur-Dhamtari.	Kushalgarh Kohat-Thal and Nowshera Durgai.	Calendar year 1903 by half-years.		
1.50	0.88	1.06	-0.10	1.33	1.67	1.90	1.26	1.51	1.49	0.99	0.67	...	1.74	-0.07	1st half	87	
1.78	0.14	0.67	0.37	1.27	1.89	1.41	0.80	1.29	1.40	0.82	0.88	...	1.02	-0.35	2nd "		
22.77	25.19	10.05	...	44.77	87.11	-3.53	19.55	54.09	34.34	30.45	19.71	...	24.53	24.84	1st half		
33.36	22.07	2.64	...	39.26	34.07	12.71	20.18	60.82	25.84	28.96	27.00	...	19.57	16.07	2nd "	88	
17.49	8.85	3.77	1	39.25	5.78	38.43	9.67	605	23.51	31.01	40	8	18	32	1st half		89
26.36	4.80	6.35	7	24.70	2.73	28.43	6.35	378	27.66	26.27	25	8	10	60	2nd "		
607	278	256	1	1,209	147	1,297	277	181	922	1,108	9	1	12	49	1st half		
711	218	226	4	868	73	1,175	236	188	954	1,086	7	7	12	92	2nd "	90	
2.88	3.18	1.47	1.29	3.25	3.95	2.96	3.49	8.35	3.09	2.88	4.28	8.25	1.47	0.65	1st half		
3.71	2.20	2.81	1.66	2.85	3.71	2.41	2.69	2.73	2.90	2.54	3.58	1.10	0.80	0.65	2nd "		
47.067	17,512	13,875	6	130,078	10,066	99,830	24,858	17,244	75,286	88,423	466	135	499	600	1st half	92	
64.068	10,254	22,552	220	83,736	5,122	81,740	17,363	10,920	73,979	74,301	298	241	378	1,400	2nd "		
7.13	9.68	5.41	25.37	0.79	11.03	7.39	7.47	6.73	7.27	6.93	16.55	12.05	7.05	10.26	1st half		
7.90	8.98	5.41	6.43	5.66	10.22	6.68	7.18	6.65	7.18	6.79	16.52	5.97	4.85	8.24	2nd "	93	
77.51	40.09	52.26	9.73	107.59	68.65	76.94	89.74	95.41	81.61	79.80	49.42	131.44	40.02	12.19	1st half		
90.16	26.39	99.98	49.62	96.47	69.75	69.55	73.68	78.85	77.56	71.72	41.59	35.23	31.64	15.15	2nd "		
13.812	3,403	2,894	7	24,636	2,871	21,315	4,813	2,868	14,705	19,341	134	16	84	347	1st half	95	
14.737	2,421	3,668	46	16,666	1,327	18,433	3,532	1,950	14,936	17,911	92	18	51	528	2nd "		
2.845	1.4.0	1,521	2	9,344	1,301	8,977	2,329	1,511	4,661	5,154	88	16	41	123	1st half		
3,934	1,092	1,831	24	6,349	589	7,431	1,736	1,122	5,207	4,421	49	7	18	171	2nd "	96	
644	556	229	1	1,612	142	1,252	48	232	614	1,484	...	...	27	57	1st half		
708	436	204	7	1,322	28	1,582	30	205	658	1,454	...	...	14	71	2nd "		
17,301	5,440	4,644	10	35,632	4,404	31,544	7,190	4,641	19,980	25,989	217	32	152	527	1st half	98	
19,379	3,949	5,813	77	24,337	1,954	27,445	5,298	3,277	20,801	23,786	141	25	83	769	2nd "		
27.43	11.18	17.25	14.32	28.15	29.07	29.35	25.78	24.40	20.99	22.11	23.08	31.50	10.01	9.56	1st half		
26.27	9.04	24.47	15.24	26.51	26.22	22.01	22.35	22.18	21.12	21.56	19.76	3.60	5.79	7.57	2nd "	99	
1.06	1.27	0.89	1.60	1.33	0.97	0.96	0.17	1.28	0.67	1.35	...	...	2.20	1.15	1st half		
1.00	1.12	1.30	1.60	1.52	0.38	1.34	0.13	1.48	0.69	1.40	...	...	1.18	0.76	2nd "		
28.49	12.45	18.14	16.42	29.18	30.04	24.31	25.95	25.68	21.66	23.46	23.08	31.50	12.21	10.71	1st half	101	
27.27	10.18	25.77	17.44	28.03	26.60	23.35	22.48	23.66	21.81	23.96	19.76	3.60	6.97	8.33	2nd "		
20.16	34.78	16.38	16.66	22.15	26.06	24.36	26.01	26.33	23.27	25.01	35.43	50.29	28.17	13.10	1st half		
27.11	26.22	22.09	20.10	20.61	27.18	21.11	23.13	23.65	26.37	22.59	34.78	58.51	26.48	16.50	2nd "	102	
122,648	47,424	39,094	87	279,781	26,100	231,319	63,381	43,642	133,577	172,118	1,764	387	723	1,776	1st half		
142,664	33,454	52,564	677	189,445	12,957	189,706	47,349	30,899	138,363	157,766	1,134	294	417	2,654	2nd "		
38.38	36.98	34.21	6.79	46.49	38.56	43.16	39.22	39.51	56.36	51.37	26.42	34.94	68.61	33.80	1st half	104	
44.91	30.65	42.90	32.47	44.20	39.53	43.09	36.67	35.34	53.47	47.10	26.26	82.13	90.71	52.76	2nd "		
2.83	3.59	3.03	0.66	3.82	2.36	3.30	3.48	3.91	3.89	3.61	2.14	4.17	4.00	1.28	1st half		
8.43	2.92	4.09	3.13	3.64	2.66	3.16	3.30	3.55	3.67	3.33	2.10	9.80	5.47	2.00	2nd "	105	
3.41	5.15	4.62	0.84	5.28	3.51	4.68	5.17	6.01	5.12	4.57	3.47	8.22	5.93	1.73	1st half		
4.35	4.23	6.12	4.77	5.02	3.86	4.43	4.92	5.80	4.95	4.15	3.21	13.78	7.86	2.65	2nd "		
47.067	17,512	13,875	6	130,078	10,066	99,830	24,858	17,244	75,286	88,423	466	135	499	600	1st half	107	
64.068	10,254	22,552	220	83,736	5,122	81,740	17,363	10,920	73,979	74,301	298	241	378	1,400	2nd "		
90.503	84,100	26,348	62	173,951	20,001	172,693	37,303	24,344	110,416	138,170	1,191	296	645	2,098	1st half		
103,253	24,845	11,643	333	124,772	9,211	161,063	28,901	17,553	115,120	127,942	828	415	445	3,583	2nd "	108	
137,570	51,613	39,728	68	304,029	30,067	272,523	62,160	41,585	185,701	226,593	1,657	431	1,144	2,698	1st half		
167,322	35,099	34,195	553	208,507	14,333	242,503	46,264	28,472	189,099	202,243	1,126	656	823	4,983	2nd "		





**DIX 18—continued.**  
 in Report for 1902.)  
 (by systems) during each half-year of 1903—contd.  
 prepared by the railways not shown.

**Appendix 18.**  
 Analysis.

3' 3 1/2"													2' 6"			Gauge.	
4 (b) to (d)	8 (c)	11 (a)	11 (b)	12 (a) to (c)	14 (a) to (d)	15 (a)	18 (a) to (c)	19 (a) & (b)	20 (a) to (e)	21 (a) to (h)	22 (a)	2 (b)	2 (d)	9 (f) & (g)	Number.	Serial number.	
Eastern Bengal.	Hyderabad Godavari Valley.	Assam-Bengal.	Noakhali (Bengal)	Bengal and North-Western.*	Bhavnagar-Gondal Junagad-Portbandar.	Burma.	Jodhpur Bikaner.	Rohilkund and Kumaon.	South Indian.	Southern Maharratta.	Udaipur-Chitor.	Jubbulpore Gondia extension.	Raipur Dhamtari.	Klushalgarh-Kohat-Thal and Nowshera-Durgai.	Calendar year 1903 by half years.		
77.51 90.16	40.08 26.89	52.26 99.98	9.73 49.62	107.59 96.47	68.66 69.75	76.94 69.55	89.74 78.69	95.41 78.85	81.61 77.56	79.81 71.72	49.42 41.59	131.43 85.23	40.02 31.64	12.19 15.15	1st half 2nd "	} 110	
140.03 145.30	78.05 68.94	102.94 51.62	101.78 75.21	143.88 143.65	136.42 125.44	133.10 137.05	134.67 122.06	134.71 126.74	119.69 120.70	124.70 123.50	126.22 115.68	287.45 60.62	51.67 37.21	42.61 38.77	1st half 2nd "		
226.54 235.46	118.13 90.33	155.20 151.60	111.51 124.83	251.47 240.12	205.08 195.19	210.04 206.60	224.41 195.75	230.12 205.59	201.30 198.26	204.51 195.22	175.64 157.27	418.88 95.85	91.69 68.85	54.80 53.92	1st half 2nd "	} 112	
1.98 1.72	1.29 1.56	1.74 1.87	1.79 1.57	1.19 1.18	2.00 2.11	1.88 1.94	1.35 1.52	1.59 1.64	1.34 1.44	1.71 1.76	2.08 1.87	5.86 2.66	1.16 1.07	1.14 1.28	1st half 2nd "		
13.86 12.55	14.15 18.50	19.86 14.71	28.14 19.02	8.09 8.55	13.23 15.47	15.43 16.90	10.06 13.07	12.49 14.20	12.27 13.06	14.88 15.66	16.87 18.20	35.70 141.84	22.16 35.38	22.90 32.68	1st half 2nd "	} 114	
4.90 3.66	3.94 6.34	6.39 3.60	35.25 6.07	2.12 2.35	5.60 5.82	4.68 5.35	2.80 3.97	3.10 3.99	3.16 3.56	4.12 4.71	7.88 8.64	8.57 14.48	5.55 6.47	17.95 16.23	1st half 2nd "		
9.35 7.20	8.41 12.57	15.38 8.69	... 14.69	4.60 5.59	11.76 13.74	8.49 9.65	5.39 6.02	5.78 7.50	6.18 6.74	9.23 10.57	29.16 41.94	111.59 97.13	13.72 15.47	46.36 31.71	1st half 2nd "	} 115 A	
0.80 1.99	1.89 0.64	-0.27 0.94	-0.50 0.09	2.06 1.67	1.95 1.60	1.08 0.47	2.14 1.17	1.76 1.09	1.75 1.46	1.17 0.78	2.23 1.71	2.39 -1.56	0.31 -0.27	-0.49 -0.63	1st half 2nd "		
6.30 14.56	20.63 7.72	-2.98 7.88	-6.48 1.08	14.06 12.06	13.63 11.71	8.93 6.45	15.95 10.06	13.84 9.45	16.00 13.31	10.13 6.93	18.56 16.58	14.59 -83.33	6.01 -8.90	-9.80 -16.18	1st half 2nd "	} 117	
2.23 4.24	5.74 2.64	-0.98 1.81	-9.88 0.86	1.33 3.31	5.43 4.40	2.71 1.33	4.58 3.21	3.54 2.66	4.11 3.62	2.81 2.08	8.67 7.88	3.49 -8.51	1.50 -1.62	-7.69 -7.99	1st half 2nd "		
43.02 35.91	29.84 41.65	58.69 42.79	84.10 70.76	36.99 47.49	47.42 63.67	46.85 51.36	35.96 43.11	37.59 48.28	53.21 53.97	36.14 39.05	58.06 64.94	...	49.83 57.55	67.67 56.39	1st half 2nd "	} 119	
48.60 54.81	66.59 54.15	34.24 48.23	15.83 29.24	53.62 42.94	71.07 33.84	51.34 46.39	61.60 54.07	58.55 48.29	44.40 42.79	62.44 59.07	40.84 32.33	38.59 32.23	42.94 29.39	31.67 42.02	1st half 2nd "		
1.49 1.12	3.58 4.20	5.63 8.25	0.02 ...	2.76 2.65	1.51 2.49	1.56 1.94	2.44 2.62	3.36 3.43	2.39 3.24	1.42 1.88	1.10 2.73	61.41 67.77	7.23 13.06	0.66 1.59	1st half 2nd "	} 121	
6.89 8.16	...	0.84 0.73	...	6.63 6.92	...	0.25 0.31	...	...	...	...	...	...	...	...	1st half 2nd "		
100.00 100.00	100.00 100.00	100.00 100.00	100.00 100.00	100.00 100.00	100.00 100.00	100.00 100.00	100.00 100.00	100.00 100.00	100.00 100.00	100.00 100.00	100.00 100.00	100.00 100.00	100.00 100.00	100.00 100.00	1st half 2nd "	} 122	
18.02 13.52	14.63 28.32	24.92 20.60	...	9.71 11.68	11.76 13.06	14.40 17.33	6.60 17.84	10.82 12.60	6.16 8.35	11.82 14.69	13.76 15.25	4.83 29.39	18.39 29.99	30.66 50.72	1st half 2nd "		
13.97 9.48	12.39 19.35	19.47 15.75	...	9.59 10.88	13.43 14.63	20.15 24.78	19.28 24.28	11.45 12.49	14.05 17.69	20.44 22.70	20.14 23.83	3.26 19.10	19.06 24.63	49.53 44.41	1st half 2nd "	} 124	
4.37 2.66	1.67 2.38	5.18 5.05	...	2.15 2.52	2.99 2.79	3.99 5.33	2.44 2.55	3.58 4.78	4.13 3.23	6.14 6.74	5.47 7.83	0.69 2.99	3.60 4.29	6.98 16.29	1st half 2nd "		
10.50 8.14	8.11 12.66	13.22 12.75	...	6.90 8.18	8.75 10.68	8.57 10.84	5.20 6.51	7.48 9.01	6.59 6.50	8.92 9.68	9.59 11.16	3.49 10.24	6.39 8.33	18.81 20.35	1st half 2nd "	} 126	
5.07 3.48	8.97 14.58	18.94 16.17	...	4.48 5.82	8.87 11.63	6.71 7.43	4.02 5.24	8.26 10.94	5.69 5.77	9.04 10.13	7.76 8.46	15.65 17.70	8.43 10.96	13.89 12.30	1st half 2nd "		
2.07 1.15	1.26 2.12	4.18 4.31	...	1.80 2.05	1.08 1.32	1.11 1.81	2.76 2.50	0.56 1.70	1.10 1.15	1.40 2.01	1.61 1.45	0.07 0.53	0.81 0.89	3.10 2.30	1st half 2nd "	} 128	
8.17 6.05	...	0.81 0.78	...	2.62 3.20	...	1.96 0.83	...	...	...	...	...	...	...	4.49 4.09	1st half 2nd "		
62.17 44.33	47.02 70.41	86.72 75.41	110.36 ...	37.25 44.13	46.88 54.06	56.19 68.35	40.30 58.92	42.15 51.52	37.71 42.69	57.76 66.20	53.33 67.93	27.99 79.95	56.68 79.09	127.46 151.46	1st half 2nd "	} 130	

Burhwal link.

Appendix 18.  
Analysis.

APPEN  
(Appendix 4

Analysis of working of each railway

NOTE.—These statistics are no

Serial number.	PARTICULARS.	GAUGE. Number Calendar year 1903 by half-year	5' 6"										
			1 (a)	2 (a)	3 (a) to (f)	4 (a)	5 (a) to (d)	6 (a) to (c)	7 (a) to (c)	8 (a) & (b)	9 (a) to (e)	10 (a) & (b)	11 (g) to (l)
			Bengal-Central.	Bengal-Nagpur.	Bombay, Baroda and Central India.	Eastern Bengal.	East Indian.	Great Indian Peninsula.	Madras.	The Nizam's Guaranteed State.	North-Western.	Ondh and Rohilkhand.	Rajputana-Malwa.
<b>TABLE A.—MAINTENANCE OF</b>													
<b>PER MILE OF LINE MAINTAINED.</b>													
131 a	General superintendence (including office expenses) . . . Rs.	{ 1st half 2nd "	126.16 132.45	110.14 119.65	189.47 179.87	278.83 283.56	211.25 213.98	129.37 134.22	143.13 143.55	129.95 130.90	133.97 134.62	136.32 132.32	90.97 94.73
132 a	Maintenance and renewal of permanent-way . . . "	{ 1st half 2nd "	830.17 671.80	302.29 260.97	787.19 672.66	1,419.09 638.01	598.12 633.51	467.02 292.77	410.99 445.89	407.78 313.63	530.07 363.46	241.30 466.00	377.95 354.21
133 a	Repairs of bridges, &c. . . "	{ 1st half 2nd "	26.09 56.26	102.33 79.00	115.80 117.21	64.73 192.16	143.26 119.92	155.47 111.81	88.21 141.54	74.80 128.13	69.07 67.00	127.87 80.06	55.60 61.71
134 a	Conservancy of rivers . . . "	{ 1st half 2nd "	... 2.96	... ...	... ...	5.79 5.65	... ...	... ...	... ...	... 0.32	12.36 18.68	1.34 9.54	... ...
135 a	Repairs of stations and buildings,,	{ 1st half 2nd "	79.92 85.86	61.98 58.13	120.81 133.96	315.27 358.52	241.20 222.57	119.28 103.95	79.83 65.31	50.71 48.33	136.92 101.64	101.81 92.12	58.00 70.54
136 a	Other charges (net) . . . "	{ 1st half 2nd "	13.11 21.06	38.03 47.75	92.30 47.09	98.29 95.68	109.80 124.44	62.87 75.22	160.19 152.04	80.06 90.70	126.40 125.14	73.23 108.15	44.31 24.80
137 a	Total maintenance, &c. . . "	{ 1st half 2nd "	1,075.45 970.39	615.37 565.50	1,305.57 1,150.79	2,177.00 1,573.58	1,303.63 1,314.42	934.01 717.97	880.35 948.33	743.30 713.71	1,009.29 825.54	681.37 888.19	626.83 605.99
<b>PER MILE OF TRACK, INCLUDING SIDINGS.</b>													
131 b	General superintendence (including office expenses) . . . Rs.	{ 1st half 2nd "	104.64 109.86	97.50 105.39	125.96 119.65	144.21 149.12	137.69 138.66	96.30 99.83	118.62 118.91	115.78 116.57	105.89 106.40	119.07 115.58	78.02 81.10
132 b	Maintenance and renewal of permanent-way . . . "	{ 1st half 2nd "	688.56 577.21	268.14 229.86	523.33 447.45	747.36 335.51	389.86 410.54	347.63 217.77	340.59 369.35	368.35 279.30	418.96 287.29	210.77 407.04	324.16 303.28
133 b	Repairs of bridges, &c. . . "	{ 1st half 2nd "	21.64 46.66	90.59 69.58	76.99 77.97	34.09 101.05	98.38 77.71	115.72 83.17	71.44 117.25	66.64 114.10	54.59 68.77	111.70 69.53	47.69 52.84
134 b	Conservancy of rivers . . . "	{ 1st half 2nd "	... 2.45	... ...	... ...	3.05 2.97	... ...	... ...	... ...	... 0.28	10.16 10.81	1.17 8.34	... ...
135 b	Repairs of stations and buildings,,	{ 1st half 2nd "	66.29 71.21	54.87 51.20	80.32 89.11	166.04 183.54	137.21 144.24	99.78 77.32	66.16 54.09	45.19 43.13	108.22 80.34	88.49 50.46	49.75 60.40
136 b	Other charges (net) . . . "	{ 1st half 2nd "	10.87 17.47	33.67 42.05	61.35 31.32	51.76 50.31	71.58 80.64	46.80 55.94	132.75 125.94	71.35 82.21	99.91 98.90	63.96 94.47	38.01 21.23
137 b	Total maintenance, &c. . . "	{ 1st half 2nd "	892.00 804.86	544.77 498.08	867.95 765.50	1,146.51 627.50	849.71 851.79	695.23 534.03	729.56 785.54	662.31 635.59	797.73 652.51	595.16 775.82	537.63 518.85
<b>PER TOTAL TRAIN-MILE.</b>													
131 c	General superintendence (including office expenses) . . . Rs.	{ 1st half 2nd "	1.27 0.99	1.29 1.42	1.55 1.67	1.28 1.05	0.89 0.96	0.66 0.86	1.35 1.35	1.33 1.65	1.13 1.04	1.14 1.14	0.91 1.07
132 c	Maintenance and renewal of permanent-way . . . "	{ 1st half 2nd "	8.35 5.03	3.56 3.10	6.41 6.24	6.66 2.36	2.49 2.86	2.39 1.88	3.88 4.20	4.17 3.95	4.48 2.81	2.02 4.00	3.78 3.99
133 c	Repairs of bridges, &c. . . "	{ 1st half 2nd "	0.26 0.42	1.20 0.94	0.94 1.09	0.30 0.71	0.59 0.54	0.30 0.72	0.81 1.33	0.77 1.61	0.58 0.67	1.07 0.69	0.55 0.69
134 c	Conservancy of rivers . . . "	{ 1st half 2nd "	... 0.02	... ...	... ...	0.03 0.02	... ...	... ...	... ...	... ...	0.11 0.11	0.01 0.09	... ...
135 c	Repairs of stations and buildings,,	{ 1st half 2nd "	0.81 0.65	0.74 0.69	0.99 1.24	1.48 1.32	1.00 1.00	0.61 0.67	0.76 0.62	0.52 0.60	1.16 0.78	0.85 0.79	0.58 0.80
136 c	Other charges (net) . . . "	{ 1st half 2nd "	0.13 0.16	0.45 0.56	0.75 0.44	0.46 0.35	0.46 0.56	0.32 0.48	1.51 1.43	0.43 1.17	1.07 0.96	0.61 0.93	0.45 0.27
137 c	Total maintenance, &c. . . "	{ 1st half 2nd "	10.82 7.27	7.24 6.71	10.64 10.68	10.21 5.81	5.42 5.92	4.78 4.61	8.31 8.93	7.62 8.98	8.53 6.37	5.70 7.64	6.27 6.82
<b>PER 1,000 GROSS TON-MILES.</b>													
131 d	General superintendence (including office expenses) . . . Rs.	{ 1st half 2nd "	0.37 0.22	0.23 0.28	0.23 0.29	0.26 0.18	0.13 0.13	0.12 0.17	0.27 0.29	0.20 0.28	0.21 0.19	0.22 0.39	0.23 0.30
132 d	Maintenance and renewal of permanent-way . . . "	{ 1st half 2nd "	2.42 1.11	0.64 0.62	0.98 1.07	1.36 0.41	0.87 0.40	0.44 0.37	0.77 0.88	0.68 0.67	0.84 0.51	0.39 1.37	0.97 1.13
133 d	Repairs of bridges, &c. . . "	{ 1st half 2nd "	0.08 0.09	0.22 0.18	0.14 0.18	0.06 0.12	0.08 0.08	0.15 0.14	0.16 0.28	0.12 0.27	0.11 0.12	0.21 0.24	0.14 0.20
134 d	Conservancy of rivers . . . "	{ 1st half 2nd "	... 0.01	... ...	... ...	0.01 ...	... ...	... ...	... ...	... ...	0.02 0.02	... 0.02	... ...
135 d	Repairs of stations and buildings,,	{ 1st half 2nd "	0.23 0.14	0.13 0.14	0.15 0.21	0.30 0.23	0.15 0.14	0.11 0.13	0.15 0.13	0.08 0.11	0.22 0.15	0.16 0.27	0.15 0.22
136 d	Other charges (net) . . . "	{ 1st half 2nd "	0.03 0.03	0.08 0.11	0.12 0.08	0.09 0.06	0.07 0.07	0.06 0.09	0.30 0.30	0.14 0.19	0.20 0.17	0.12 0.32	0.12 0.08
137 d	Total maintenance, &c. . . "	{ 1st half 2nd "	3.13 1.60	1.30 1.33	1.62 1.83	2.08 1.00	0.80 0.82	0.87 0.90	1.65 1.88	1.22 1.52	1.60 1.16	1.10 2.61	1.61 1.93

\* Excluding the Cawnpore-Burhwal link

DIX 18—continued.  
in Report for 1902.)  
(by systems) during each half year of 1903—contd.  
prepared by the railways not shown.

8' 3 1/2"													2' 8"			GAUGE.	
4 (b) to (d)	8 (c)	11 (a)	11 (b)	12 (a) to (c)	14 (a) to (d)	15 (a)	18 (a) to (c)	19 (a) & (b)	20 (a) to (e)	21 (a) to (h)	22 (a)	2 (b)	2 (d)	9 (f) & (g)	Number.	Serial number.	
Eastern Bengal.	Hyderabad-Godavri Valley.	Assam-Bengal.	Noakhali (Bengal).	Bengal and North-Western.*	Bhavnagar-Gondal-Junagad-Porbandar.	Burma.	Jodhpur-Bikaner.	Rohilkund and Kumaon.	South Indian.	Southern Maharashtra.	Udai-pur-Chitor.	Jubbulpore-Gondia extension.	Raipur-Dhamtari.	Khushalgarh-Kohat-Thal and Nowshera Durgal.	Calendar year 1903 by half-years.		
<b>WAY, WORKS AND STATIONS.</b>																	
110-19 119-61	105-88 106-71	119-06 114-75		98-00 105-98	75-19 62-46	114-24 121-92	23-68 23-44	69-87 74-58	105-34 107-01	82-17 81-15	49-81 46-58	23-39	8-69 7-46	114-26 158-79	1st half 2nd "	131a	
481-89 438-88	215-50 211-48	185-84 198-95		234-04 197-16	195-19 148-18	451-73 439-21	65-71 207-26	195-37 212-43	171-38 271-96	194-59 175-01	118-52 115-42	35-41 65-54	113-83 107-09	127-01 219-78	1st half 2nd "	132a	
64-50 57-10	56-85 132-44	55-57 45-26		66-45 87-51	3-42 2-87	89-54 78-88	15-78 5-58	48-86 42-79	18-56 17-02	27-72 50-67	9-04 1-14	...	8-64 4-91	29-25 110-50	1st half 2nd "	133a	
0-01 0-10	...	...		10-63 3-05	...	0-14 0-20	...	6-70 -2-57	...	...	...	...	...	...	1st half 2nd "	134a	
105-12 151-51	38-11 55-42	41-89 36-09		52-29 48-62	11-20 11-11	102-08 77-26	10-08 4-77	54-87 29-82	23-19 42-65	30-09 45-94	17-73 10-54	...	16-66 23-02	17-09 26-92	1st half 2nd "	135a	
121-81 123-40	80-64 134-93	26-92 31-21		42-98 47-51	18-39 11-16	65-31 81-97	10-55 13-08	20-61 31-41	-3-23 -21-85	32-84 44-66	11-19 6-00	...	-8-26 30-80	19-53 33-59	1st half 2nd "	136a	
883-52 890-10	496-98 640-98	429-38 421-26		504-34 489-83	298-39 235-78	823-09 794-44	125-75 254-11	398-28 388-46	320-24 416-79	367-41 397-48	201-29 179-68	35-41 88-93	139-54 173-28	307-14 549-58	1st half 2nd "	137a	
94-40 102-21	95-30 95-99	105-17 101-57		85-01 91-68	68-45 56-85	98-68 105-82	22-59 22-40	61-96 66-33	93-89 95-86	74-01 73-08	46-72 43-69	...	8-17 7-03	105-02 146-45	1st half 2nd "	131b	
412-85 374-59	193-96 190-23	164-30 171-68		203-02 170-94	177-70 184-90	391-03 381-20	62-82 198-01	173-28 188-94	152-75 242-37	175-25 157-55	106-48 108-26	33-18 57-93	107-02 100-69	116-73 202-70	1st half 2nd "	132b	
55-27 48-80	51-17 119-13	49-09 40-07		57-65 75-88	3-11 2-62	77-51 64-12	15-09 5-32	43-33 38-07	16-54 15-17	24-96 45-62	8-48 1-07	...	8-12 4-61	26-88 101-91	1st half 2nd "	133b	
0-01 0-08	...	...		9-22 2-65	...	0-12 0-17	...	5-94 -2-29	...	...	...	...	...	...	1st half 2nd "	134b	
90-06 129-47	34-30 49-86	37-02 31-95		45-36 42-15	10-20 10-11	88-35 67-06	9-63 4-56	48-66 26-52	25-12 38-01	27-10 41-36	16-64 9-89	...	15-66 21-64	15-70 24-82	1st half 2nd "	135b	
104-36 105-45	72-58 121-37	23-78 27-62		37-24 41-14	12-19 10-17	56-52 71-15	10-09 12-48	18-29 27-92	-2-68 -19-47	29-57 40-21	4-50 5-63	...	-7-78 28-95	17-96 30-98	1st half 2nd "	136b	
756-95 760-60	447-31 576-58	379-36 372-89		437-50 424-64	271-65 214-64	712-41 689-52	120-23 242-77	351-46 345-49	285-42 371-44	330-89 357-80	188-82 168-54	33-18 78-61	131-19 162-92	282-29 506-86	1st half 2nd "	137b	
1-13 1-11	1-40 1-71	2-70 2-96	Included with the Assam-Bengal.	0-92 1-16	1-92 1-93	1-09 1-22	0-66 0-65	0-97 1-04	1-11 1-14	1-19 1-22	2-06 1-92	...	0-29 0-22	1-84 2-16	1st half 2nd "	131c	
4-95 4-07	3-06 3-40	4-21 5-01		2-13 2-15	4-97 4-59	4-33 4-41	1-80 5-73	2-67 2-91	1-81 2-89	2-80 2-64	4-74 4-77	16-53 11-78	3-77 3-18	2-05 2-99	1st half 2nd "	132c	
0-67 0-53	0-80 2-13	1-26 1-17		0-62 0-95	0-09 0-09	0-86 0-74	0-44 0-15	0-67 0-58	0-20 0-18	0-40 0-77	0-37 0-04	...	0-29 0-15	0-47 1-51	1st half 2nd "	133c	
...	...	...		0-09 0-03	...	...	...	0-09 -0-04	...	...	...	...	...	...	...	1st half 2nd "	134c
1-08 1-40	0-54 0-89	0-95 0-93		0-49 0-53	0-28 0-35	0-98 0-78	0-27 0-14	0-75 0-41	0-30 0-45	0-43 0-69	0-74 0-43	...	0-55 0-68	0-28 0-37	1st half 2nd "	135c	
1-25 1-15	1-15 2-17	0-61 0-82		0-40 0-52	0-34 0-35	0-62 0-82	0-29 0-36	0-28 0-43	-0-04 -0-23	0-47 0-67	0-45 0-24	...	-0-27 0-91	0-82 0-46	1st half 2nd "	136c	
9-08 8-26	7-05 10-30	9-73 10-89		4-70 5-34	7-60 7-31	7-88 7-97	3-46 7-03	5-43 5-83	3-88 4-43	5-29 5-99	8-36 7-40	16-53 15-98	4-62 5-14	4-96 7-49	1st half 2nd "	137c	
0-37 0-36	0-50 0-61	0-96 1-05		0-26 0-34	0-64 0-73	0-34 0-38	0-19 0-22	0-32 0-38	0-38 0-39	0-39 0-42	0-63 0-70	...	0-26 0-26	1-94 2-39	1st half 2nd "	131d	
1-64 1-30	1-02 1-20	1-51 1-77		0-64 0-65	1-66 1-73	1-34 1-37	0-54 1-96	0-89 1-09	0-62 0-98	0-93 0-91	1-56 1-74	9-47 7-68	3-41 3-72	2-16 3-30	1st half 2nd "	132d	
0-22 0-17	0-27 0-75	0-45 0-41		0-18 0-29	0-03 0-03	0-27 0-23	0-18 0-06	0-22 0-21	0-07 0-06	0-13 0-26	0-13 0-01	...	0-26 0-17	0-50 1-66	1st half 2nd "	133d	
...	...	...	0-03 0-01	...	...	...	0-03 -0-01	...	...	...	...	...	...	...	1st half 2nd "	134d	
0-36 0-45	0-18 0-31	0-34 0-33	0-14 0-16	0-10 0-12	0-30 0-24	0-09 0-05	0-25 0-15	0-10 0-16	0-15 0-24	0-23 0-15	...	0-50 0-80	0-29 0-41	1st half 2nd "	135d		
0-41 0-37	0-38 0-78	0-21 0-28	0-12 0-16	0-11 0-14	0-20 0-26	0-08 0-12	0-10 0-16	-0-02 -0-08	0-16 0-23	0-14 0-09	...	-0-25 1-08	0-33 0-50	1st half 2nd "	136d		
3-00 2-65	2-35 3-63	3-48 3-84	1-37 1-61	2-54 2-75	2-45 2-48	1-03 2-41	1-81 1-98	1-15 1-51	1-76 2-06	2-73 2-69	2-47 10-42	4-18 6-01	5-22 8-23	1st half 2nd "	137d		

and Sagauli-Baxaul railway.

Appendix 18.  
Analysis.

APPENDIX

(Appendix 18)

Analysis of working of each railway

NOTE.—These statistics are in

Serial number.	PARTICULARS.	GAUGE. Number.	5' 6"																					
			1 (a)	2 (a)	3 (a) to (f)	4 (a)	5 (a) to (d)	6 (a) to (e)	7 (a) to (c)	8 (a) & (b)	9 (a) to (e)	10 (a) & (b)	11 (a) to (b)											
			Bengal Central.	Bengal Nagpur.	Bombay, Baroda and Central India.	Eastern Bengal.	East Indian.	Great Indian Peninsula.	Madras.	The Nizam's Guaranteed State.	North-Western.	Oodh and Rohilkhand.	Rajputana-Malwa											
<b>TABLE B.—LOCOMOTIVE EXPENSES</b>																								
	Average price of fuel per ton in terms of		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "		
	coal		6.18	6.19	3.46	3.31	17.72	16.74	6.45	6.47	2.03	1.97	10.52	10.75	10.90	11.47	4.67	4.66	13.99	14.09	7.70	7.69	16.72	17.86
	wood		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>PER TOTAL TRAIN-MILE.</b>																								
138a	General superintendence (including office expenses) Annas		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			0.60	0.45	0.83	0.82	1.22	1.25	0.79	0.66	0.62	0.66	0.53	0.68	0.62	0.71	0.76	0.85	0.59	0.59	0.53	0.53	0.53	0.72
139a	Running expenses		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			1.12	0.98	2.21	2.17	3.29	3.33	2.23	1.95	2.21	2.15	2.71	2.88	1.92	1.93	1.81	1.89	1.65	1.53	1.05	1.11	1.91	2.13
140a	Fuel		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			2.09	2.39	1.46	1.40	6.98	6.48	2.71	2.72	0.98	0.90	4.18	4.10	4.50	4.82	2.09	1.93	4.82	4.90	3.09	2.94	4.12	4.13
141a	Water		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			0.15	0.18	0.22	0.19	0.48	0.49	0.17	0.18	0.11	0.13	0.33	0.31	0.27	0.30	0.27	0.27	0.23	0.21	0.10	0.12	0.28	0.31
142a	Oil, tallow and other stores		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			0.29	0.27	0.21	0.32	0.46	0.47	0.38	0.37	0.35	0.33	0.37	0.36	0.36	0.37	0.35	0.33	0.23	0.23	0.26	0.23	0.27	0.30
143a	Maintenance and renewal of locomotives		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			1.98	2.16	1.98	1.90	4.70	5.52	5.26	1.57	2.11	2.29	2.84	3.78	2.76	4.26	7.35	1.69	2.23	3.52	1.16	1.23	2.77	3.53
143A (a)	Maintenance and renewal of machinery, tools and plant		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			0.05	0.03	0.23	0.16	0.46	0.53	0.32	0.58	0.14	0.15	0.16	0.24	0.10	0.11	0.20	0.21	0.20	0.25	0.10	0.14	0.27	0.34
144a	Other charges (net)		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			0.27	0.22	1.65	1.57	0.92	0.61	0.61	0.53	1.11	0.95	1.33	1.30	1.29	1.62	0.29	0.64	1.25	1.17	1.73	1.25	0.54	0.39
145a	Total locomotive expenses		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			6.50	6.68	8.79	8.53	18.51	18.68	12.47	8.56	7.63	7.56	12.46	13.66	11.82	14.18	13.12	7.81	12.67	11.11	8.01	7.55	10.91	11.93
	Fuel consumed in terms of		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
	coal* lbs.		37.81	43.17	59.13	59.15	55.14	54.21	56.83	58.93	67.13	64.21	55.66	53.48	57.80	58.91	62.72	58.43	49.29	48.71	50.51	48.15	31.46	32.44
	wood		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>PER ENGINE-MILE.</b>																								
138b	General superintendence (including office expenses) Annas		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			0.51	0.35	0.73	0.70	1.02	1.05	0.56	0.46	0.48	0.53	0.46	0.59	0.52	0.59	0.64	0.73	0.58	0.53	0.45	0.46	0.61	0.68
139b	Running expenses		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			0.93	0.77	1.94	1.87	2.74	2.79	1.56	1.35	1.74	1.71	2.37	2.50	1.61	1.60	1.53	1.60	1.45	1.35	0.90	0.95	1.66	1.79
140b	Fuel		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			1.75	1.87	1.28	1.21	5.83	5.48	1.90	1.89	0.77	0.72	3.65	3.57	3.78	3.99	1.79	1.64	4.33	4.88	2.63	2.54	3.51	3.50
141b	Water		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			0.12	0.13	0.19	0.17	0.40	0.41	0.12	0.12	0.09	0.10	0.29	0.27	0.22	0.25	0.24	0.23	0.20	0.19	0.09	0.10	0.24	0.27
142b	Oil, tallow and other stores		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			0.24	0.21	0.18	0.27	0.39	0.39	0.27	0.26	0.28	0.27	0.33	0.31	0.30	0.31	0.29	0.28	0.21	0.20	0.22	0.20	0.23	0.25
143b	Maintenance and renewal of locomotives		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			1.62	1.69	1.74	1.64	3.92	4.68	3.69	1.09	1.66	1.82	2.48	3.29	2.32	3.53	6.27	1.44	3.00	1.97	0.99	1.05	2.36	2.99
143A (b)	Maintenance and renewal of machinery, tools and plant		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			0.04	0.03	0.20	0.14	0.38	0.45	0.23	0.40	0.10	0.12	0.14	0.21	0.09	0.09	0.18	0.18	0.18	0.22	0.08	0.08	0.23	0.29
144b	Other charges (net)		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			0.23	0.18	1.44	1.35	0.77	0.51	0.43	0.36	0.87	0.75	1.16	1.13	1.08	1.34	0.25	0.53	1.10	1.03	0.46	0.38	0.46	0.33
145b	Total locomotive expenses		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
			5.44	5.23	7.70	7.35	15.45	15.66	8.76	5.93	5.99	6.02	10.87	11.89	9.92	11.70	11.19	6.68	11.14	9.82	6.83	5.51	9.30	10.10
	Fuel consumed in terms of		1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "	1st half	2nd "
	coal* lbs.		31.63	33.75	51.32	51.00	46.03	45.43	47.32	40.87	52.77	51.10	48.57	46.54	48.55	48.77	53.47	49.57	43.32	43.05	47.05	41.53	29.36	27.45
	wood		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

\* The standard used is Kurhurbaree coal, except in the case of the Nizam's Guaranteed State railway, which uses Singaroni coal.

DIX 18—continued.

in Report for 1902.)

(by systems) during each half-year of 1903—contd.

prepared by the railways not shown.

8 3/4"												2' 6"			GAUGE.		Serial number.
4 (b) to (d).	8 (c)	11 (a)	11 (b)	12 (a) to (c)	14 (a) to (d)	15 (a)	18 (a) to (c)	19 (a) & (b).	20 (a) to (e)	21 (a) to (h)	22 (a)	2 (b)	2 (d)	9 (f) & (g)	Number.		
Eastern Bengal.	Hyderabad-Godavari Valley.	Assam-Bengal.	Noakhali (Bengal).	Bengal and North-Western.†	Bhavnagar-Gondal-Junagad-Porbandar.	Burma.	Jodhpur-Bikaner.	Rohilkund and Kumaon.	South Indian.	Southern Mahratta.	Udaipur-Chitor.	Jubbulpore-Gondia extension.	Raipur-Dhamtari.	Khushalgarh-Kohat-Thal and Nowshera-Durgai.	Calendar year 1903 by half-years.		
SES.																	
7.67 8.20	6.93 7.00	7.04 7.39		6.07 6.09	17.46 17.98	13.46 12.79	...	...	14.33 11.17	10.36 10.64	17.83 15.78	2.22 3.74	3.35 3.23	18.00 16.97	1st half 2nd "		
...	...	...		...	...	...	...	4.82 4.10	...	...	...	...	...	...	1st half 2nd "		
0.63	1.06	1.08		0.36	0.94	0.38	0.53	0.75	0.64	0.87	1.95	...	0.70	0.94	1st half		
0.54	1.18	1.30		0.41	1.11	1.00	0.54	0.78	0.61	0.90	1.86	1.76	0.65	0.86	2nd "		
1.15 1.02	1.45 1.56	1.39 1.48		0.81 0.86	1.33 1.47	2.68 2.74	0.81 0.78	0.78 0.78	1.44 1.47	1.68 1.74	0.94 0.84	4.04 2.31	1.04 0.92	1.06 0.96	1st half 2nd "		
1.98 2.02	1.98 1.98	2.33 2.41		1.76 1.63	3.76 3.34	4.10 3.64	5.00 4.21	2.33 1.98	3.39 3.18	2.50 2.65	5.07 4.88	3.01 1.55	0.60 0.53	3.37 2.40	1st half 2nd "		
0.13 0.14	0.27 0.27	0.29 0.28		0.16 0.15	0.18 0.20	0.23 0.29	0.35 0.34	0.13 0.13	0.13 0.14	0.22 0.23	0.41 0.48	2.02 0.18	0.40 0.35	0.38 0.46	1st half 2nd "		
0.20 0.18	0.27 0.24	0.21 0.23		0.13 0.19	0.32 0.30	0.34 0.34	0.43 0.24	0.20 0.20	0.21 0.22	0.14 0.16	0.28 0.28	2.10 0.05	0.14 0.13	0.51 0.38	1st half 2nd "		
0.94	0.92	1.74		0.76	1.76	1.89	1.62	0.87	1.39	2.28	3.19	...	0.77	1.28	1st half		
0.98	0.81	1.91		0.94	1.81	2.65	1.46	0.84	3.10	2.07	3.06	0.84	0.27	0.52	2nd "		
0.18	0.18	0.08		0.01	0.12	0.14	0.12	0.13	0.12	0.29	0.89	...	0.02	0.05	1st half		
0.29	0.25	0.02		0.03	0.14	0.17	0.14	0.16	0.16	0.28	0.24	...	0.01	0.08	2nd "		
1.83 0.02	-0.17 0.78	0.53 0.70		0.69 0.70	0.25 -0.27	0.71 0.57	1.24 1.74	0.56 0.41	0.39 0.51	1.18 1.23	0.03 ...	...	1.13 1.36	0.42 0.90	1st half 2nd "		
7.04 5.79	5.96 7.02	7.00 8.33		4.73 4.91	8.66 8.16	11.02 11.40	10.10 9.55	5.75 5.28	7.71 9.89	9.16 9.26	12.26 11.59	11.17 10.39	4.80 4.22	8.01 6.56	1st half 2nd "		
36.07 34.49	40.06 38.60	38.33 39.94		40.56 37.56	30.18 26.02	42.67 41.61	41.25 37.53	...	33.09 39.89	33.83 34.85	33.75 34.41	18.98 57.92	24.87 23.13	26.23 19.81	1st half 2nd "		
...	...	...		...	...	...	...	80.96 73.19	...	...	...	...	...	...	1st half 2nd "		
0.51	0.95	0.97		0.30	0.85	0.71	0.50	0.61	0.58	0.77	1.82	...	0.69	0.80	1st half		
0.44	1.05	1.07		0.34	1.01	0.83	0.51	0.65	0.55	0.80	1.74	1.65	0.65	0.74	2nd "		
0.93 0.82	1.30 1.38	1.22 1.22		0.68 0.71	1.20 1.33	2.17 2.28	0.77 0.75	0.62 0.65	1.31 1.33	1.50 1.55	0.88 0.78	4.04 2.17	1.02 0.91	0.89 0.82	1st half 2nd "		
1.60 1.63	1.79 1.72	2.06 1.99		1.48 1.37	3.39 3.02	3.32 3.04	4.72 3.99	1.87 1.65	3.07 2.89	2.23 2.36	4.74 4.58	3.01 1.46	0.58 0.53	2.86 2.05	1st half 2nd "		
0.11 0.11	0.24 0.24	0.26 0.28		0.14 0.12	0.16 0.18	0.23 0.24	0.33 0.33	0.10 0.11	0.11 0.13	0.20 0.20	0.38 0.41	2.02 0.17	0.39 0.35	0.32 0.39	1st half 2nd "		
0.17 0.14	0.24 0.22	0.19 0.19		0.16 0.16	0.29 0.27	0.27 0.28	0.41 0.33	0.16 0.17	0.20 0.20	0.13 0.14	0.26 0.26	2.10 0.05	0.14 0.13	0.43 0.33	1st half 2nd "		
0.76	0.84	1.53		0.64	1.58	1.53	1.53	0.70	1.26	2.03	2.98	...	0.76	1.09	1st half		
0.79	0.73	1.57		0.79	1.64	2.21	1.38	0.70	2.82	1.85	2.88	0.79	0.27	0.44	2nd "		
0.15	0.16	0.02		0.01	0.10	0.12	0.10	0.10	0.11	0.25	0.37	...	0.02	0.05	1st half		
0.24	0.28	0.02		0.03	0.13	0.14	0.12	0.13	0.14	0.25	0.22	...	0.01	0.07	2nd "		
1.49 0.50	-0.15 0.70	0.47 0.58		0.58 0.59	0.23 -0.19	0.58 0.48	1.17 1.64	0.44 0.35	0.36 0.46	1.05 1.10	0.03 ...	...	1.11 1.35	0.86 0.77	1st half 2nd "		
5.72 4.67	5.37 6.27	6.72 6.87		3.99 4.11	7.80 7.39	9.93 9.50	9.53 9.05	4.60 4.41	7.00 8.52	8.16 8.25	11.46 10.87	11.17 9.77	4.71 4.20	6.80 5.61	1st half 2nd "		
29.26 27.83	36.12 34.37	34.40 32.97		34.23 31.39	27.19 23.55	34.58 34.08	38.90 35.67	...	30.03 36.21	30.14 31.05	31.57 32.32	18.98 54.47	24.44 23.06	22.27 16.94	1st half 2nd "		
...	...	...		...	...	...	...	64.84 61.14	...	...	...	...	...	...	1st half 2nd "		

Included with the Assam-Bengal.

† Including the Cawnpore-Burhwal link.

Appendix 18.  
Analysis.

APPEN

(Appendix

Analysis of working of each railway

NOTE.—These statistics are n

Serial number.	PARTICULARS.	GAUGE. Number. Calendar year 1903 by half-years.	5' 6"										8 (g) to (i)
			1 (a)	2 (a)	3 (a) to (f)	4 (a)	5 (a) to (d)	6 (a) to (e)	7 (a) to (c)	8 (a) & (b)	9 (a) to (e)	10 (a) & (b)	
			Bengal Central.	Bengal-Nagpur.	Bombay, Baroda and Central India.	Eastern Bengal.	East Indian.	Great Indian Peninsula.	Madras.	The Nizam's Guaranteed State.	North Western.	Ondh and Rohilkhand.	
<b>TABLE B.—LOCOMOTIVE</b>													
<b>PER 1,000 GROSS TON-MILES.</b>													
138c	General superintendence (including office expenses) . . . Rs.	1st half 2nd "	0.18 0.10	0.15 0.16	0.19 0.22	0.16 0.11	0.09 0.10	0.10 0.13	0.12 0.15	0.12 0.15	0.13 0.11	0.10 0.11	0.18 0.23
139c	Running expenses . . . "	1st half 2nd "	0.37 0.21	0.40 0.43	0.50 0.57	0.45 0.34	0.38 0.30	0.49 0.56	0.38 0.41	0.28 0.32	0.31 0.28	0.20 0.24	0.49 0.60
140c	Fuel . . . . . "	1st half 2nd "	0.60 0.52	0.26 0.28	1.06 1.11	0.55 0.47	0.14 0.12	0.76 0.80	0.91 1.02	0.33 0.32	0.92 0.89	0.60 0.68	1.06 1.17
141c	Water . . . . . "	1st half 2nd "	0.04 0.04	0.04 0.04	0.07 0.09	0.04 0.03	0.02 0.02	0.06 0.06	0.06 0.06	0.04 0.05	0.04 0.04	0.02 0.02	0.07 0.09
142c	Oil, tallow and other stores. "	1st half 2nd "	0.09 0.06	0.03 0.07	0.07 0.08	0.08 0.06	0.05 0.05	0.07 0.07	0.07 0.08	0.06 0.06	0.05 0.04	0.05 0.05	0.07 0.08
143c	Maintenance and renewal of locomotives . . . "	1st half 2nd "	0.56 0.48	0.36 0.37	0.71 0.95	1.07 0.27	0.31 0.32	0.52 0.73	0.56 0.90	1.19 0.29	0.66 0.40	0.23 0.26	0.72 0.99
143c A	Maintenance and renewal of machinery, tools and plant . . . "	1st half 2nd "	0.01 0.01	0.04 0.03	0.07 0.09	0.07 0.10	0.02 0.02	0.03 0.05	0.02 0.02	0.04 0.03	0.04 0.05	0.02 0.03	0.07 0.10
144c	Other charges (net) . . . "	1st half 2nd "	0.08 0.06	0.30 0.31	0.14 0.10	0.12 0.09	0.16 0.13	0.24 0.25	0.26 0.24	0.05 0.10	0.23 0.21	0.33 0.27	0.14 0.11
145c	Total locomotive expenses . . . "	1st half 2nd "	1.88 1.47	1.58 1.69	2.81 3.21	2.54 1.47	1.12 1.06	2.27 2.66	2.38 2.98	2.11 1.32	2.38 2.02	1.55 1.61	2.60 3.37
	Fuel consumed in terms of												
	{ coal* . lbs. {	1st half 2nd "	177.49 190.46	169.83 188.13	194.31 148.95	191.91 162.15	158.30 143.81	162.11 166.40	186.12 198.41	162.03 158.21	147.88 141.89	156.13 164.44	141.68 146.64
	{ wood . . . {	1st half 2nd "	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...
<b>TABLE C.—CARRIAGE AND</b>													
<b>PER TOTAL TRAIN-MILE.</b>													
146a	General superintendence (including office expenses) . . . Annas	1st half 2nd "	0.30 0.22	0.16 0.16	0.44 0.48	0.46 0.38	0.15 0.16	0.17 0.21	0.16 0.18	0.12 0.22	0.10 0.11	0.12 0.12	0.26 0.30
147a	Repairs and renewals of coaching vehicles . . . "	1st half 2nd "	1.97 1.50	0.45 0.55	2.59 2.63	4.13 1.58	0.14 0.24	0.97 1.39	0.93 1.59	0.40 0.80	0.91 0.95	1.26 1.07	1.53 1.68
148a	Repairs and renewals of goods vehicles . . . "	1st half 2nd "	2.98 1.49	0.70 0.62	3.50 3.21	1.01 1.47	0.71 0.98	1.25 1.41	1.59 1.31	1.55 1.00	0.47 0.64	0.39 0.40	2.66 2.05
148A (a)	Repairs and renewals of machinery, tools and plant . . . "	1st half 2nd "	0.03 0.01	0.02 0.02	0.18 0.22	0.04 0.03	0.11 0.14	0.07 0.13	0.06 0.07	0.05 0.05	0.03 0.03	0.04 0.04	0.10 0.14
149a	Cleaning and oiling . . . "	1st half 2nd "	0.43 0.32	0.68 0.63	0.55 0.62	0.29 0.32	0.18 0.14	0.39 0.45	0.34 0.36	0.37 0.48	0.31 0.30	0.32 0.35	0.33 0.40
150a	Other charges (net) . . . "	1st half 2nd "	... ...	0.06 0.03	0.04 0.09	0.05 0.05	0.01 ...	0.02 0.01	0.33 0.36	0.02 ...	0.08 0.03	0.01 0.02	0.02 0.06
151a	Total carriage and wagon expenses . . . . . "	1st half 2nd "	3.00 2.05	2.07 2.01	7.30 7.25	5.98 3.83	1.30 1.66	2.87 3.61	3.41 3.87	2.51 2.55	1.90 2.06	2.14 2.00	4.30 4.63
<b>PER 1,000 VEHICLE-MILE RUN BY HOME VEHICLES.</b>													
146b	General superintendence (including office expenses) . . . Rs.	1st half 2nd "	1.40 0.67	0.36 0.41	0.97 1.22	1.44 0.98	0.39 0.40	0.60 0.72	0.45 0.56	0.31 0.51	0.28 0.31	0.28 0.31	0.57 0.72
147b	Repairs and renewals of coaching vehicles† . . . "	1st half 2nd "	9.73 7.10	3.65 5.08	17.65 15.52	29.41 14.48	1.32 2.08	12.25 13.44	7.92 13.15	4.51 7.40	7.72 8.42	10.01 7.68	10.17 9.64
148b	Repairs and renewals of goods vehicles† . . . . . "	1st half 2nd "	12.46 3.26	2.10 2.13	11.50 14.54	5.74 5.27	2.53 3.37	5.98 7.61	7.10 6.60	4.77 3.15	1.98 2.65	1.37 1.69	6.79 8.26
148A (b)	Repairs and renewals of machinery, tools and plant . . . "	1st half 2nd "	0.13 0.04	0.05 0.05	0.41 0.56	0.11 0.09	0.29 0.34	0.26 0.47	0.20 0.24	0.12 0.13	0.09 0.08	0.09 0.11	0.23 0.33
149b	Cleaning and oiling . . . . . "	1st half 2nd "	2.03 0.96	1.48 1.59	1.22 1.60	0.91 0.83	0.45 0.35	1.36 1.86	1.01 1.13	0.91 1.12	0.89 0.85	0.78 0.92	0.71 0.95
150b	Other charges (net) . . . . . "	1st half 2nd "	... ...	0.12 0.06	0.08 0.22	0.17 0.13	0.02 0.02	0.06 0.05	0.99 1.12	0.04 ...	0.23 0.08	0.02 0.04	0.05 0.18
151b	Total carriage and wagon expenses . . . . . "	1st half 2nd "	14.16 6.17	4.53 5.06	16.18 18.58	18.88 9.88	3.33 4.12	8.97 12.51	10.03 12.12	6.09 6.00	5.38 5.82	5.17 5.27	9.48 10.96

\* Converted to the equivalent of Kurhurbaree coal, except in the case of the Nizam's  
† These two items are calculated respectively upon the coaching and goods vehicle-mileages.  
‡ Including the Cawnpore-Burhwal link.



DIX 18—continued.

in Report for 1902.)

(by systems) during each half-year of 1903—contd.

prepared by the railways not shown.

Appendix 18.  
Analysis.

3' 3 1/2"													2' 6"		GAUGE.	
4 (b) to (d)	8 (c)	11 (a)	11 (b)	12 (a) to (c)	14 (a) to (d)	15 (a)	18 (a) to (c)	19(a) & (b)	20 (a) to (e)	21 (a) to (h)	22 (a)	2 (b)	2 (d)	9 (f) & (g)	Number.	Serial number.
Eastern Bengal.	Hyderabad-Godavari Valley.	Assam-Bengal.	Noakhali (Bengal).	Bengal and North-Western.	Bhavnagar-Gondal Juna-gad-Porbandar.	Barma.	Jodhpur Bikaner.	Rohilkund and Kumaon.	South Indian.	South-ern Mah-ratta.	Udai-pur-Cbitor.	Jubbulpore-Gondia extension.	Raipur-Dhamtari.	Khushal-garh-Kohat-Thal and Nowsh-era-Durgai	Calendar year 1903 by half-years.	
0.21	0.35	0.39		0.10	0.32	0.27	0.15	0.25	0.22	0.29	0.63		0.63	0.99	1st half	} 138c
0.17	0.41	0.46		0.12	0.42	0.31	0.19	0.29	0.21	0.31	0.68	1.14	0.76	0.95	2nd "	
0.33	0.49	0.50		0.24	0.44	0.34	0.25	0.27	0.49	0.56	0.30	0.60	0.94	1.11	1st half	} 139c
0.33	0.55	0.52		0.26	0.55	0.35	0.26	0.29	0.50	0.60	0.30	1.51	1.08	1.05	2nd "	
0.65	0.66	0.83		0.52	1.26	1.27	1.49	0.78	1.15	0.83	1.67	0.45	0.54	3.54	1st half	} 140c
0.65	0.68	0.85		0.50	1.26	1.13	1.44	0.74	1.09	0.91	1.78	1.01	0.62	2.64	2nd "	
0.04	0.09	0.10		0.05	0.06	0.09	0.10	0.04	0.04	0.07	0.13	0.30	0.36	0.40	1st half	} 141c
0.04	0.10	0.10		0.05	0.08	0.09	0.12	0.05	0.05	0.08	0.16	0.12	0.41	0.51	2nd "	
0.07	0.09	0.08		0.05	0.10	0.10	0.13	0.07	0.07	0.85	0.09	0.32	0.13	0.53	1st half	} 142c
0.06	0.08	0.08		0.06	0.11	0.11	0.12	0.07	0.07	0.05	0.10	0.03	0.15	0.42	2nd "	
0.31	0.31	0.62		0.23	0.59	0.59	0.48	0.28	0.47	0.76	1.05		0.70	1.95	1st half	} 143c
0.32	0.29	0.66		0.29	0.63	0.32	0.50	0.32	1.06	0.71	1.12	0.55	0.32	0.57	2nd "	
0.06	0.06	0.01		...	0.04	0.04	0.03	0.04	0.04	0.09	0.12		0.02	0.05	1st half	} 143
0.09	0.09	0.01		...	0.05	0.05	0.05	0.06	0.05	0.10	0.08		0.01	0.10	2nd "	
0.61	0.06	0.19		0.21	0.08	0.22	0.37	0.18	0.13	0.39			1.02	0.45	1st half	} 144c
0.20	0.28	0.25		0.21	0.08	0.18	0.60	0.15	0.18	0.42		2.41	1.59	0.99	2nd "	
2.33	1.99	2.72		1.40	2.89	3.42	3.00	1.91	2.62	3.04	4.00	1.67	4.34	8.42	1st half	} 145c
1.86	2.48	2.93		1.50	3.07	3.54	3.28	1.97	3.21	3.18	4.22	6.77	4.94	7.23	2nd "	
190.55	218.75	219.17		192.11	161.26	211.85	195.94	...	179.81	179.62	178.38	45.32	360.28	441.40	1st half	}
177.21	217.53	225.14		183.09	156.75	206.86	206.86	...	217.86	191.89	201.78	604.82	433.11	349.31	2nd "	
...	...	...		...	...	...	...	431.44	...	...	...	...	...	...	1st half	}
...	...	...		...	...	...	...	437.12	...	...	...	...	...	...	2nd "	
EXPENSES—concl'd.																
WAGON EXPENSES.																
0.28	0.14	0.36		0.12	0.28	0.25	0.13	0.32	0.22	0.27	0.27		0.17	0.06	1st half	} 146a
0.25	0.13	0.42		0.14	0.33	0.28	0.12	0.39	0.20	0.28	0.27	0.35	0.06	0.07	2nd "	
0.79	0.24	0.61		0.23	0.79	0.74	0.42	0.52	0.75	0.89	2.07		0.16	0.50	1st half	} 147a
0.26	0.25	0.78		0.31	0.57	0.87	0.36	0.59	0.49	0.89	2.58	0.35	0.19	0.99	2nd "	
0.79	0.13	0.78		0.37	0.56	0.81	0.42	0.66	1.03	1.36	0.64		0.25	0.20	1st half	} 148a
0.14	0.12	1.20		0.41	0.37	0.89	0.30	0.69	0.77	1.32	0.58	0.35	0.11	1.03	2nd "	
0.03	0.04	0.03		0.02	0.06	0.06	0.02	0.03	0.04	0.04					1st half	} 148
0.05	0.05	0.01		0.02	0.07	0.06	0.01	0.06	0.05	0.04	0.01				2nd "	
0.24	0.25	0.23		0.26	0.22	0.29	0.29	0.26	0.25	0.18	0.28	2.36	0.32	0.37	1st half	} 149a
0.17	0.31	0.22		0.26	0.27	0.30	0.21	0.28	0.25	0.20	0.33	0.57	0.27	0.31	2nd "	
0.07	...	0.01		0.01	0.02	0.04	...	0.01	-0.03	0.01	0.02		0.01	...	1st half	} 150a
0.10	...	0.04		0.02	-0.05	0.05	...	0.01	-0.05	0.02	0.02		...	0.01	2nd "	
2.20	0.80	2.02		1.06	1.93	2.19	1.28	1.80	2.26	2.75	3.28	2.36	0.91	1.13	1st half	} 151a
1.57	0.86	2.67		1.16	1.55	2.45	1.00	2.02	1.71	2.75	3.79	1.62	0.73	2.41	2nd "	
0.74	0.45	1.14		0.29	0.66	0.70	0.38	0.84	0.65	0.78	0.67		0.97	0.31	1st half	} 146b
0.70	0.49	1.05		0.35	0.90	0.82	0.38	1.18	0.62	0.80	0.84	6.01	1.30	0.43	2nd "	
5.41	2.64	3.83		1.94	1.84	5.26	1.21	3.94	4.60	7.43	9.01		2.25	4.61	1st half	} 147b
6.76	2.17	4.88		1.71	2.41	5.60	1.10	3.99	2.99	7.15	11.07	6.17	2.82	12.21	2nd "	
3.39	0.69	4.99		1.29	1.32	3.62	1.21	2.52	6.19	5.86	3.73		2.38	2.69	1st half	} 149b
0.61	0.75	5.40		1.76	2.85	4.53	0.94	3.88	4.76	5.80	6.25	6.17	1.90	14.26	2nd "	
0.09	0.16	0.11		0.04	0.14	0.15	0.06	0.09	0.12	0.12	0.01		0.01	...	1st half	} 148
0.14	0.19	0.03		0.06	0.20	0.19	0.04	0.16	0.15	0.10	0.04		0.01	...	2nd "	
0.62	0.85	0.72		0.58	0.52	0.80	0.32	0.64	0.76	0.51	0.73	4.68	1.78	2.00	1st half	} 149b
0.49	1.08	0.55		0.62	0.73	0.84	0.64	0.84	0.75	0.58	1.02	9.91	2.22	2.01	2nd "	
0.17	...	0.03		0.02	0.04	0.10	...	0.02	-0.08	0.02	0.06		0.06	0.02	1st half	} 150b
0.26	...	0.09		0.04	-0.15	0.13	0.01	0.03	-0.16	0.04	0.09		0.01	0.09	2nd "	
5.79	2.77	6.40		2.43	4.52	6.00	3.68	4.50	6.85	7.82	14.21	4.68	5.15	6.16	1st half	} 151b
4.89	3.10	11.50		2.80	4.24	6.99	3.11	6.05	5.23	7.80	19.31	28.26	5.94	15.71	2nd "	

Included with the Assam-Bengal.

Guaranteed State railway, on which the equivalent is in terms of Singareni coal.  
all other items in the table being calculated upon the aggregate of both coaching and goods vehicle-mileages.

NOTE.—These statistics are not

Serial number.	PARTICULARS.	5' 6"											
		GAUGE	1 (a)	2 (a)	3 (a) to (f)	4 (a)	5 (a) to (d)	6 (a) to (e)	7 (a) to (c)	8 (a) & (b)	9 (a) to (e)	10 (a) & (b)	11 (g) to (l)
		Number.	Bengal-Central.	Bengal-Nagpur.	Bombay, Baroda and Central India.	Eastern Bengal.	East Indian.	Great Indian Peninsula.	Madras.	The Nizam's Guaranteed State.	North Western.	Oudh and Rohilkhand.	Rajputana-Malwa.
<b>PER TOTAL TRAIN-MILE.</b>		<b>TABLE D.—TRAFFIC</b>											
152a	General superintendence (including office expenses) . . . . . Annas	1st half 2nd "	0·96 0·77	0·87 0·89	1·00 1·07	1·60 1·22	0·62 0·67	0·44 0·54	0·73 0·83	0·45 0·56	0·58 0·49	0·62 0·65	0·59 0·69
153a	Station staff . . . . . "	1st half 2nd "	2·75 3·17	2·00 1·99	3·66 3·92	6·25 5·78	2·63 2·73	1·80 2·17	2·14 2·25	1·70 2·03	2·16 2·04	2·30 2·38	2·16 2·50
154a	Train staff . . . . . "	1st half 2nd "	0·52 0·46	0·61 0·68	0·95 0·98	1·09 0·92	1·08 1·13	1·12 1·34	0·66 0·67	0·65 0·72	0·81 0·76	0·72 0·78	0·56 0·62
155a	Fuel, lighting, water and general stores . . . . . "	1st half 2nd "	0·44 0·40	0·46 0·60	1·29 0·93	1·16 0·88	0·48 0·49	0·56 0·69	0·46 0·50	0·44 0·46	0·49 0·49	0·58 0·51	0·76 0·60
156a	Clothing . . . . . "	1st half 2nd "	... 0·06	0·06 0·01	0·15 0·09	0·09 0·07	0·06 0·03	0·06 0·08	0·10 0·04	... 0·09	0·04 0·09	0·11 0·07	0·09 0·06
157a	Printing, stationery and tickets . . . . . "	1st half 2nd "	0·52 0·82	0·34 0·27	0·49 0·50	0·46 0·38	0·26 0·24	0·25 0·35	0·48 0·47	0·21 0·23	0·18 0·19	0·29 0·26	0·29 0·32
158a	Charges for delivery and collection of goods, etc. . . . . "	1st half 2nd "	... ...	0·01 0·01	... ...	0·02 0·05	0·01 0·01	0·01 0·01	0·03 0·01	... 0·01	... ...	0·01 0·01	... ...
159a	Miscellaneous expenses . . . . . "	1st half 2nd "	0·03 0·02	0·02 0·01	0·02 0·02	0·11 0·04	0·03 ...	0·02 0·02	0·05 0·06	0·01 0·02	... ...	... ...	0·01 0·01
160a	Payments to other lines . . . . . "	1st half 2nd "	0·21 0·18	0·56 0·64	0·08 0·45	0·01 ...	0·07 0·07	0·09 0·14	0·04 0·05	0·35 0·48	0·05 0·03	0·27 0·19	0·05 0·28
161a	Other charges (net) . . . . . "	1st half 2nd "	... ...	0·02 0·01	0·01 0·03	0·01 0·01	0·01 0·02	0·01 0·02	0·05 0·08	... ...	0·05 0·03	0·02 0·01	... 0·02
162a	Total traffic expenses . . . . . "	1st half 2nd "	5·43 5·38	4·95 5·11	7·65 7·99	10·80 9·85	5·25 5·39	4·35 5·36	4·75 4·97	3·81 4·65	4·36 4·12	4·92 4·86	4·51 5·10
<b>PER CENT. ON TRAFFIC EARNINGS.</b> <i>(Abstracts H and I of Revenue Accounts.)</i>													
152b	General superintendence (including office expenses) . . . . . per cent.	1st half 2nd "	2·32 1·47	1·57 1·87	0·91 1·20	2·64 1·53	0·88 0·94	0·68 0·99	1·22 1·49	0·61 0·84	1·01 0·88	1·20 1·58	0·90 1·21
153b	Station staff . . . . . "	1st half 2nd "	6·64 6·04	3·60 4·17	3·31 4·36	10·31 7·21	3·74 3·88	2·79 4·01	3·55 4·06	2·26 3·12	3·78 3·70	4·41 5·76	3·28 4·41
154b	Train staff . . . . . "	1st half 2nd "	1·25 0·88	1·10 1·42	0·86 1·09	1·80 1·15	1·54 1·61	1·73 2·49	1·10 1·21	0·86 1·09	1·43 1·38	1·39 1·89	0·85 1·10
155b	Fuel, lighting, water and general stores . . . . . "	1st half 2nd "	1·06 0·76	0·84 1·25	1·16 1·04	1·91 1·09	0·68 0·70	0·87 1·28	0·76 0·91	0·57 0·69	0·86 0·89	1·11 1·23	1·16 1·05
156b	Clothing . . . . . "	1st half 2nd "	... 0·12	0·10 0·03	0·14 0·10	0·15 0·09	0·09 0·06	0·09 0·14	0·16 0·07	... 0·13	0·07 0·16	0·20 0·17	0·14 0·10
157b	Printing, stationery and tickets . . . . . "	1st half 2nd "	1·27 0·62	0·61 0·56	0·44 0·56	0·76 0·47	0·27 0·34	0·39 0·65	0·80 0·84	0·27 0·34	0·32 0·35	0·57 0·63	0·44 0·56
158b	Charges for delivery and collection of goods, etc. . . . . "	1st half 2nd "	... ...	0·02 0·02	... ...	0·03 0·07	0·01 0·01	0·02 0·02	0·04 0·02	... 0·01	... ...	0·02 0·03	... ...
159b	Miscellaneous expenses . . . . . "	1st half 2nd "	0·06 0·08	0·03 0·03	0·02 0·02	0·13 0·04	0·04 ...	0·02 0·03	0·07 0·10	0·01 0·03	0·01 ...	... ...	0·02 0·03
160b	Payments to other lines . . . . . "	1st half 2nd "	0·51 0·34	1·01 1·33	0·07 0·50	0·01 ...	0·10 0·10	0·15 0·26	0·07 0·09	0·46 0·71	0·08 0·05	0·51 0·46	0·07 0·50
161b	Other charges (net) . . . . . "	1st half 2nd "	... ...	0·04 0·02	0·01 0·03	0·02 0·02	0·02 0·02	0·02 0·03	0·09 0·15	... 0·01	0·08 0·05	0·05 0·02	0·01 0·03
162b	Total traffic expenses . . . . . "	1st half 2nd "	13·11 10·26	8·92 10·70	6·92 8·90	17·81 11·67	7·47 7·66	6·75 9·92	7·88 8·96	5·04 6·97	7·64 7·46	9·46 11·77	6·87 8·99
<b>General superintendence per cent. on traffic earnings (including steam-boat) . . . . . Per cent.</b>		1st half 2nd "	2·32 1·47	1·57 1·87	0·91 1·20	2·64 1·53	0·87 0·94	0·68 0·99	1·22 1·49	0·61 0·84	1·01 0·88	1·20 1·58	0·90 1·21

## APPENDIX 38—contd.

Appendix 38.  
History of railways.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 5</sup> Sub-heads (a) to (d) **EAST INDIAN RAILWAY SYSTEM—**  
 Lines comprising system.—The East Indian railway system is made up of—

	Open line. Miles.	Under construction. Miles.	Total Miles.
(a) East Indian railway (5' 6" gauge)	1,935.11	215.14	2,150.25
(b) Delhi-Umballa-Kalka railway (5' 6" gauge)	162.36	...	162.36
(c) South Behar railway (5' 6" gauge)	78.76	...	78.76
(d) Tarkessur railway (5' 6" gauge)	22.23	...	22.23
<b>Total</b>	<b>2,198.46</b>	<b>215.14</b>	<b>2,413.60</b>

Running powers—			Miles.
<i>Home line over Foreign lines:—</i>			
Agra East Bank to Agra Fort, Rajputana-Malwa railway			1.00
Kidderpore Dooks to Naihati and Chitpur, Eastern Bengal State railway			34.50
Moghal Sarai to Benares Cantonment, Oudh and Rohilkhand State railway			10.00
			<b>45.50</b>
<i>Foreign lines over Home line:—</i>			
Bengal-Nagpur railway at Katni			0.30
" " " at Asansol			0.50
" " " at Howrah			1.00
Indian Midland railway, Agra to Tundla			12.75
" " " at Cawnpore			1.49
" " " at Manikpur			0.63
" " " at Katni			0.38
North Western and Oudh and Rohilkhand State railways, Ghaziabad to Delhi			13.00
<b>5 (a) East Indian railway proper (5' 6" gauge)—</b>			<b>30.05</b>

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<i>Main line—</i>			Miles.	Miles.		Miles.
Howrah to Hooghly	January '51	15-8-54	23.28		1854	38
Hooghly to Pundooah		1-9-54	14.31		1855	120
Pundooah to Khana junction		3-2-55	36.94		1856	120
Khana junction to Baneegunge		3-2-55	45.71		1856	120
Baneegunge to Siarsol		21-7-63	1.70		1857	120
Siarsol to Sitarampur	Feb'y. '66	1-1-65	15.15			
Sitarampur to Luckeeserai junction		1-1-71	124.64			
Luckeeserai to Dinapore		17-11-62	82.42		1858	139
Dinapore to Moghal Sarai		22-12-62	125.92		1859	286
Moghal Sarai to Mirzapur		1-1-64	39.28		1860	370
Mirzapur to south bank, Jumna		4-4-64	52.64		1861	561
Jumna bridge to Allahabad		15-8-65	2.75		1862	677
Allahabad to Cawnpore		3-3-59	119.47			
Cawnpore to Etawah		1-7-61	86.46			
Etawah to Shikohabad		18-11-61	84.39		1863	933
Shikohabad to Tundla junction		1-4-62	22.92		1864	1,131
Tundla junction to Aligarh		1-3-63	48.56		1865	1,155
Aligarh to Chola (Bulandshahr Road)		1-4-64	35.54		1866	1,155
Chola to Delhi (south bank, Jumna)		1-8-64	41.27		1867	1,380
Delhi terminus		1-1-67	1.78			
			955.08		1868	1,380
<i>Loop line—</i>					1869	1,380
Khana junction to river Adjai	...	3-10-58	19.00		1870	1,360
River Adjai to Sainthia		3-9-59	25.12		1871	1,530
Sainthia to Tinpahar		15-10-60	76.12		1872	1,530
Tinpahar to Bhagalpur		1-11-61	69.12			
Bhagalpur to Jamalpur		10-2-62	32.62			
Jamalpur to Luckeeserai	17-11-62	28.41				
			250.39		1873	1,530
					1874	1,530
					1875	1,530
					1876	1,530
					1877	1,530
<b>Total main and loop lines</b>				<b>1,205.47</b>		
<i>Branches on main line—</i>						
<i>Bhadreswar branch—</i>						
Bhadreswar junction to the river bank	...	6-12-82	2.60		1878	1,530
<i>Hooghly bridge branch—</i>					1879	1,588
Hooghly junction to Naihati	14-1-84	15-3-87	4.22		1880	1,600
<i>Ondal loop—</i>					1881	1,600
Ondal to Babasole	July '82	1-5-64	2.03		1882	1,603
Babasole to Mangalpur		1-1-63	2.74			
Mangalpur to Toposi		2-2-63	2.65			
Toposi to Ikrah junction		15-4-94	2.42		1883	1,605
Ikrah junction to Gourangdi		1-6-95	14.16		1884	1,605
Gourangdi to Alipur	29-3-91	30-8-95	7.54		1885	1,611
					1886	1,611
					1887	1,610
<i>Ikrah branch—</i>					1888	1,610
Ikrah junction to the Ondal loop	July '82	15-4-94	8.92		1889	1,610
<i>Jharia branch—</i>					1890	1,610
Sitarampur to Barakar	9-3-92	1-1-65	5.43		1891	1,610
Barakar to Katrasgarh	...	*20-5-94	33.80		1892	1,610
			39.23			
<i>Sitarampur-Damohani extension—</i>					1893	1,613
Mile 132 from Howrah to Sitarampur	18-7-99	15-4-02	6.99		1894	1,664
<i>Salanpur branch—</i>					1895	1,700
Salanpur to Shamdi	9-3-92	7-9-94	4.29		1896	1,701
		1-1-97	1.24		1897	1,705
			5.53		1898	1,712
<i>Chanoh branch—</i>					1899	1,711
From mile 144 to Chanoh	9-3-92	1-2-93	2.88		1900	1,840
	11-2-96	5-8-96	1.00		1901	1,838
					1902	1,923
			3.88		1903	1,935
<b>Carried over</b>			102.91	<b>1,205.47</b>		

\* The first 7 miles of this extension were worked for coal traffic from the 1st August 1895.

**Appendix 38.**  
**History of railways.**

**APPENDIX 38—contd.**

[ Appendices 4 (portion), 6, 7 and 47 in Report for 1902. ]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number Main head 5 **EAST INDIAN RAILWAY SYSTEM—contd.**  
Sub heads (a) to (d)

**5 (a) East Indian railway proper (5' 6" gauge)—contd.**

**Progress in opening—contd.**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total
			Miles.	Miles.
			102'91	1,205'47
Brought forward	...	...		
<i>Pandra branch—</i> From mile 148½ on Jharia branch to Pandra	4-8-99	26-11-00	8'23	
<i>Damoodur branch—</i> Dheria Joba to the Damoodur river	15-1-04	30-6-95 15-7-96	8'00 1'77	
			9'77	
<i>Kurhurbaree branch—</i> Madhopur junction to Giridih	...	1-1-71	26'70	
<i>Colliery lines—</i> <i>Katras-Kanoodih extension—</i> Katrasgarh to Kanoodih	9-12-01	7-3-03	7'28	
<i>Jharia-Dhanbaid Chord—</i> Jharia to Dhanbaid		1-5-03	3'79	
<i>Katras-Mulkeria cross connection—</i> Northern half of connection		15-8-03	0'67	
			11'69	
<i>Mokameh Ghat branch—</i> Mokameh junction to Mokameh Ghat	...	1-5-83	3'70	
<i>Patna-Gya branch—</i> Bankipore junction to Bankipore	13-2-78	2-6-79	0'25	
Bankipore to Jehanabad		21-4-79	28'95	
Jehanabad to Gya		2-6-79	29'22	
			58'42	
<i>Barun-Daltonganj branch—</i> Sone East Bank (Barun) to Rajhara	16-5-97	3-5-02	67'30	
Rajhara to Daltonganj		15-12-02	10'72	
			78'02	
<i>Dighaghat branch—</i> Bankipore junction to Dighaghat	30-7-84	2-4-85	5'58	
<i>Tarighat branch—</i> Didarnagar junction to Tarighat	11-7-78	5-10-80	12'00	
<i>Moghal Sarai-Gya branch—</i> Moghal Sarai to Gya	...	1-3-00 1-5-02	125'48 0'94	
			126'42	
<i>Jubbulpore branch—</i> Naini junction to Jubbulpore	Feby. '63	1-8-67	223'58	
<i>Allahabad fort branch</i>	...	3-3-59	2'24	
<i>Cawnpore city branch</i>	...	15-2-79	0'68	
<i>Agra branch—</i> Tundla junction to Agra East bank	...	1-4-62	13'35	
<i>Hathras city branch</i>	...	1-11-98	5'58	
<i>Branches on loop line—</i> <i>Azimganj branch—</i> Nalhati to Azimganj*	...	15-7-92	27'23	
<i>Rajmehal branch—</i> Tinpahar junction to Rajmehal	...	15-10-60	7'00	
<i>Sakrighat branch—</i> Sakrighat junction to the river Ganges	...	1-1-94	1'99	
<i>Maharajpur branch</i>	...	30-11-98	2'48	
<i>Sultangunge branch</i>	22-3-93	6-5-95	1'14	
<i>Monghyr branch—</i> Jamalpur to Monghyr	...	10-4-62	5'68	
				729'64
<b>TOTAL OPEN MILEAGE, EAST INDIAN RAILWAY PROPER</b>	...	...	...	1,935'11
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>				
<i>Gya-Katrasgarh railway—</i> Manpur to 0'87 mile beyond Gurpa (Plains section)	25-3-02	March 1906.†	25'25	
Mile 0'67 beyond Gurpa to Kodarma (Hill section)	20-6-02		18'19	
Kodarma to Hariharpur (Plateau section)	20-6-02		56'35	
			99'79	
<i>Shikohabad-Farakhabad railway</i>	13-1-98	1-3-05†	65'82	
<i>Colliery lines—</i> <i>Tasra siding</i>	1-11-01	...	1'75	
<i>Chandore branch—</i> Mile 170½ from Howrah on the Jharia branch to Chandore	17-3-03	30-6-04†	4'16	
			5'91	
<i>Ondal Sainthia Chord—</i> Ondal to Sainthia	1-12-03	1-1-06†	43'62	
				215'14
<b>GRAND TOTAL, EAST INDIAN RAILWAY PROPER</b>	...	...	...	2,150'25

\* This line was originally on the 4' 0" gauge, but was converted to 5' 6" gauge, and incorporated with the East Indian railway from 1900.  
† Probable date of opening.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 5</sup> <sub>Sub-heads (a) to (d)</sub> EAST INDIAN RAILWAY SYSTEM—contd.

5 (a) East Indian railway proper (5' 6" gauge)—contd.

Progress in opening—concl'd.

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.
			Miles.
<b>DOUBLE LINE—MAIN LINE AND BRANCHES—</b>			
Howrah to Serampore . . . . .	...	10-3-57	11-74
Serampore to Chandernagore . . . . .	...	1-2-58	8-38
Chandernagore to Hooghly . . . . .	...	1-5-58	3-11
Hooghly to Magra . . . . .	...	1-10-58	5-49
Magra to Pundooah . . . . .	...	25-2-59	8-82
Pundooah to Bardwan . . . . .	...	1-10-59	*28-72
Bardwan to Khana . . . . .	...	1-1-59	8-22
Khana to Durgapur . . . . .	...	1-6-70	31-35
Durgapur to Raneegunge . . . . .	...	2-9-70	14-36
Raneegunge to Sitarampur . . . . .	...	19-12-70	16-85
Sitarampur to Luckeesarai . . . . .	...	1-1-71	124-64
Luckeesarai to Burhee . . . . .	...	22-6-60	9-82
Burhee to Barh . . . . .	...	22-2-68	27-10
Barh to Futwah . . . . .	...	11-1-68	25-87
Futwah to Dinapore . . . . .	...	20-3-67	19-63
Dinapore to Bihta . . . . .	...	13-8-98	10-93
Bihta to Arrah . . . . .	...	28-3-70	13-50
Arrah to Buxar . . . . .	...	13-3-68	42-67
Buxar to Dildarnagar . . . . .	...	15-4-82	22-46
Dildarnagar to Zamania . . . . .	...	20-5-82	8-59
Zamania to Sakaldiha . . . . .	...	20-9-82	16-28
Sakaldiha to Moghal Sarai . . . . .	...	10-8-82	11-49
Hooghly bridge branch . . . . .	...	15-3-87	4-22
Sitarampur to Barakar . . . . .	...	6-3-01	8-39
Ghaziabad to Shahadara . . . . .	20-10-99	20-2-02	8-13
Shahadara to east side of Jumna bridge near Delhi . . . . .	20-10-99	1-7-02	2-57
<b>TOTAL DOUBLE LINE . . . . .</b>	...	...	<b>493-33</b>

## Details of construction—

**Permanent-way.**—The main line is laid with wooden and cast iron plate sleepers. The rails vary in weight from 74 lb. to 85 lb. to the yard. On the Ondal Loop, the rails are laid on timber sleepers and cast iron bowl and plate sleepers. On the Jharia branch, the rails are iron and steel and are laid on timber and cast iron plate sleepers. On the Giridih branch, the rails are laid on timber sleepers and cast iron bowl and plate sleepers. On the Patna-Gya branch, the first 29 miles are laid with 64 lb. rails. On the Moghal Sarai-Gya branch, double-headed 75 lb. rails are laid with cast iron chairs and timber sleepers. The Jubbulpore branch is laid with 75 lb. steel rails on timber and cast iron plate sleepers. The Azimganj branch is laid with 82 lb. rails on cast iron plate sleepers.

**Ballast.**—The line is ballasted throughout with stone.

**Tunnels.**—See Appendix 37.

**Bridges.**—See Appendix 36.

**Fencing.**—The line is double fenced throughout, excepting the Azimganj branch, and the Barakar-Katrasgarh section of the Jharia branch, which are unfenced, and also the Moghal Sarai-Gya branch which is fenced near villages, round station yards and for a short distance near each level crossing only.

**Curves.**—There are no curves with a radius of less than 1,000 feet.

**Gradients.**—The ruling gradient of the main line is 1 in 300 except between Raneegunge and Luckeesarai where it is 1 in 200 with a 1 in 100 banking section, between Simultala and Jhajha. The ruling gradient of the Loop line and the Jubbulpore branch is 1 in 200; of the Moghal Sarai-Gya branch, 1 in 400; of the Patna-Gya branch, 1 in 250; of the Jharia branch, 1 in 140; of the Azimganj branch, 1 in 100; and of the Ondal Loop and Kurhurbaree branches, 1 in 80.

## Terms of contracts—

The railway is worked under the following contracts:—

**Contracts of—22nd December 1879.**—East Indian Railway Company's principal contract.

10th November 1893.—Contract for the incorporation of the following State branches in the undertaking:—Ghaziipur (Dildarnagar to Tarighat); Bhadreswar (Bhadreswar junction to the right bank of the Hooghly); Mokameh (Mokameh junction to the Ganges); Digha Ghat (Bankipore junction to the right bank of the Ganges at Digha Ghat); Jharia (Barakar to the Jharia coal-fields); Toposi colliery (Toposi to Kharabad, Nundi to Panuria and Salanpur to Snamdi); Gya (Bankipore to Gya); and Azimganj (Nalhati to Azimganj).

26th February 1896.—As to debenture capital.

22nd November 1897.—Contract for the construction and working of the Moghal Sarai-Gya railway.

14th November 1899.—Contract modifying that of 1879.

The general conditions of the contracts are as follows:—

**Government aid.**—Government guarantees interest at 4 per cent. in sterling on £6,550,000 (being capital representing the deferred portion, i.e., one-fifth of the annuity payable under the terms of purchase). All capital is provided either by Government or by the Company by the issue of debentures or debenture stock, in such manner or on such terms as to interest or otherwise as the Secretary of State determines.

\* Of this, 220 miles (Boinchee to Debipur) are laid with a third track.

# Appendix 38.

## History of railways.

# APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

## History of railways constructed and in progress.

[For Index see page 168.]

### Number Main head 5 **EAST INDIAN RAILWAY SYSTEM—contd.** Sub-heads (a) to (d)

#### 5 (a) East Indian railway proper (5' 6" gauge)—contd.

##### Terms of contracts—contd.

*Terms of contracts.*—The lines were purchased from the East Indian Guaranteed Railway Company by the State on the 1st January 1880, and all the contracts then subsisting between the Secretary of State and that Company (except those relating to debentures or debenture stock) were determined. The purchase price was £32,750,000,\* and it was provided by the Purchase Act that this should be paid in the form of a terminable annuity of the amount of £1,478,750, payable from the 1st January 1880 to the 14th February 1953. One-fifth of the annuity was deferred, and the holders of this portion (representing a capital sum of £3,550,000), constitute the present East Indian Railway Company, which, since the purchase, has worked the railway for the Government under the contract of 1879 as modified by the contract of 1899. The deferred annuity holders receive, in lieu of the annuity, interest at 4 per cent. per annum on £6,550,000 and a share of the surplus profits of the railway. On the determination of the contract, the portion of the annuity that has been deferred will become payable for the period remaining up to the 14th February 1953.

*Currency of contracts.*—The contract of 1879 terminates on the 31st December 1929, but either party may determine the contract at the end of the 20th or at the end of any succeeding 5th year (computed from the 1st of January 1880) on giving two clear years' notice in writing to the other party of this intention.

*NOTE.*—Government relinquished their right to determine the contract at the end of the 20th year, and by mutual agreement the principal contract will not be determined before the 31st December 1919.

*Power of Company to surrender contract.*—See currency of contracts.

*Terms of working.*—After deducting working expenses (which may include any single item of capital expenditure not exceeding Rs. 1,000 classed as a 'Minor Work,' subject to a maximum charge on such account of Rs. 25,000 in each half-year and a payment of Rs. 40 for every mile of line open to traffic to be made half-yearly to Government for supervision) the surplus profits (after payment of interest on debentures, annuity, interest on deferred portion of annuity, interest due to Government on capital advances, etc., and contribution to the Provident Fund) up to a sum of 25 lakhs of rupees are divided in proportion of four-fifths to Government and one-fifth to the Company. Any excess over 25 lakhs of rupees is divided in proportion of fourteen-fifteenths to Government and one-fifteenth to the Company.

*Rates and fares.*—Certain maxima and minima rates and fares have been fixed within which the Company are permitted to vary rates.

##### Statistics of working—

TABLE I.

Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Annuity.	Company's share of net traffic receipts.	Gain or loss to the State.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
1879*	34,32,77,360	4,35,46,730	2,86,14,479	8'34	1,65,74,963	...	61,25,877	+ 59,14,239
1880	34,35,77,327	4,35,04,947	2,86,72,035	8'35	†1,98,06,268	...	17,72,690	+ 70,93,082
1881	34,87,63,677	4,54,11,472	3,08,35,036	8'34	31,05,426	1,73,92,000	20,63,867	+ 82,73,743
1882	35,07,21,455	4,71,17,594	2,96,57,086	8'46	32,81,764	1,73,92,000	17,88,078	+ 71,95,249
1883	35,24,91,304	4,94,67,085	3,11,50,980	8'34	33,16,170	1,72,57,772	19,99,731	+ 80,77,307
1884	35,57,38,760	4,38,38,714	2,73,22,003	7'68	35,58,035	1,78,50,459	11,72,323	+ 47,41,188
1885	35,85,96,619	4,63,86,869	3,80,16,960	9'21	38,13,262	1,79,75,714	16,29,502	+ 95,98,482
1886	36,06,85,918	4,66,70,853	3,05,13,359	8'46	39,91,104	1,89,50,137	14,97,276	+ 60,74,842
1887	36,12,14,681	4,60,65,661	3,13,34,263	8'67	40,70,944	1,92,13,333	15,87,952	+ 64,62,734
1888	36,09,27,530	4,54,36,902	3,06,35,075	8'40	40,73,297	2,03,43,590	11,64,693	+ 47,53,555
1889	36,19,22,300	4,49,57,901	2,94,05,230	8'12	41,84,108	2,09,60,000	8,31,347	+ 34,28,775
1890	36,21,22,758	4,40,57,665	2,98,26,815	8'24	41,83,278	2,03,43,590	10,37,019	+ 42,62,988
1891	36,15,18,827	4,56,87,001	3,60,37,028	9'97	43,93,426	1,66,94,054	26,45,392	+ 1,03,04,156
1892	36,24,97,506	4,91,41,600	3,48,16,719	9'60	37,25,754	2,06,47,164	20,88,760	+ 83,55,041
1893	36,91,20,357	5,08,44,654	3,60,94,293	9'78	41,26,869	2,34,46,780	17,04,125	+ 68,16,499
1894	37,24,36,356	5,26,89,485	3,64,26,405	9'78	43,37,988	2,43,89,582	15,39,767	+ 61,59,068
1895	37,82,18,020	5,41,50,856	3,78,34,726	10'00	45,73,681	2,61,01,122	14,29,078	+ 57,30,845
1896	38,27,66,003	5,40,69,142	3,67,77,682	9'61	46,90,562	2,58,59,455	12,45,738	+ 49,81,932
1897	39,39,91,173	5,88,28,013	4,14,93,469	10'53	48,20,238	2,47,34,406	23,97,763	+ 95,51,062
1898	40,71,94,336	5,97,96,060	4,08,07,269	10'02	50,46,514	2,32,64,533	24,99,244	+ 89,96,978
1899	42,70,40,208	6,35,45,974	4,26,60,018	9'99	54,64,902	2,21,45,516	30,09,920	+ 1,20,39,680
1900	44,28,43,540	6,84,74,972	4,47,15,571	10'10	60,18,054	2,15,60,963	18,09,104	+ 1,68,27,450
1901	45,66,59,069	7,03,96,636	4,57,13,811	10'01	65,46,878	2,16,82,360	18,51,450	+ 1,56,32,623
1902	47,06,40,852	6,77,38,713	4,29,80,833	9'13	70,34,492	2,16,46,868	16,19,965	+ 1,26,79,508
1903	48,79,61,454	6,99,72,699	4,63,93,422	9'52	74,46,371	2,16,15,000	16,82,231	+ 1,56,54,620

\* Worked by the East Indian Guaranteed Railway Company.

† Including annuity charges, which cannot be separated from interest charges.





Appendix 19.  
Train and Engine-mileages.

APPEN  
(Appendix 20  
Train and engine-mileage in  
(Referred to in paragraph  
N.B.—A reference to Appendix 1 will furnish the key to the

GAUGE.	5' 6"													10 (a) & (b).	11 (a) & (b).	12 (a) to (c).	13 (a) & (b).	14 (a) to (d).	
	NUM- BER.	1	2 (a), (b) & (d).	3 (a), (c) to (f) & (m) & (n).	4 (a).	5 (a) to (d).	6 (a) to (f).	7 (a) to (c).	8 (a) & (b).	9 (a) to (h).									
	Calendar year.	B. C.	B. N.	E. C.	B. B. & C. I.	E. B. S.	E. I.	G. I. P.	M.	N. G. S.	N. W. SYSTEM.								O. and R.
										Comm. section.	Mily. section.	Total.							
<b>TRAIN-MILEAGE—PASSENGER TRAINS.</b>																			
1899	92	494	16	1,203	794	2,576	\$4,506	953	92	2,053	17	2,069	589	5	582	4	87		
1900	47	657	86	1,244	820	2,673	\$4,629	1,023	90	2,153	27	2,130	670	1	693	3	93		
1901	48	1,355	†	1,403	844	2,627	4,519	1,576	89	2,297	29	2,326	840	7	710	...	86		
1902	49	1,494	†	1,408	878	2,636	5,061	1,453	94	2,603	41	2,644	1,258	4	1,185	...	83		
1903	59	1,518	†	1,461	955	3,964	5,821	1,445	92	3,664	125	3,789	1,827	3	901	...	87		
<b>GOODS TRAINS.</b>																			
1899	97	538	135	1,252	768	3,123	\$5,577	425	349	3,693	237	3,930	1,012	212	715	4	156		
1900	124	1,451	340	1,370	804	3,104	\$6,122	547	632	2,833	307	3,140	1,010	197	701	5	226		
1901	100	916	†	837	793	3,494	6,301	1,163	327	4,454	405	4,859	1,333	90	962	1	103		
1902	101	1,021	†	760	834	3,942	7,164	1,005	381	4,598	506	5,106	1,468	118	1,086	17	80		
1903	134	2,036	†	766	826	3,028	7,321	925	363	5,419	583	6,002	1,454	164	1,085	62	94		
<b>MIXED TRAINS.</b>																			
1899	218	1,249	1,213	506	406	3,662	\$1,444	1,269	469	2,991	947	3,933	1,342	394	1,303	30	372		
1900	247	1,161	1,418	569	381	3,302	\$1,364	1,170	529	3,038	971	4,009	1,651	401	1,426	50	304		
1901	222	1,408	†	436	369	4,161	1,890	1,802	528	3,480	1,125	4,605	1,794	557	1,723	120	329		
1902	215	1,714	†	457	368	4,287	2,033	2,142	535	3,496	1,265	4,761	1,440	627	1,697	122	325		
1903	272	1,066	†	539	317	3,245	1,793	2,271	534	3,479	1,284	4,763	992	672	2,053	152	331		
<b>TOTAL TRAIN-MILEAGE. ††</b>																			
1899	410	2,323	1,493	3,002	2,007	14,810	†11,739	2,721	953	8,967	1,297	10,264	3,066	612	2,823	39	615		
1900	424	3,319	1,984	3,254	2,046	16,187	†12,377	2,811	1,310	8,284	1,357	9,641	3,436	599	3,067	58	685		
1901	375	3,741	†	2,786	2,047	16,840	12,938	4,659	997	10,475	1,642	12,117	4,076	655	3,400	125	519		
1902	363	4,291	†	2,711	2,177	16,865	14,445	4,600	1,010	11,116	1,696	13,012	4,281	759	3,968	139	488		
1903	466	4,619	†	2,874	2,154	16,236	15,105	4,641	994	12,939	2,114	15,053	4,415	856	4,039	216	512		
<b>ENGINE-MILEAGE.—PASSENGER TRAINS.</b>																			
1899	255	832	630	1,456	1,056	5,481	5,131	1,247	223	3,767	509	4,276	1,428	186	1,326	21	332		
1900	220	945	697	1,571	1,072	5,976	5,252	1,321	264	4,035	544	4,579	1,774	204	1,531	33	334		
1901	195	1,387	†	1,652	1,212	4,781	5,489	1,573	318	5,239	751	5,990	2,170	564	1,720	...	312		
1902	268	1,524	†	1,630	1,246	5,054	6,150	1,452	349	5,087	821	5,908	2,302	629	1,185	...	292		
1903	473	1,551	†	(a)1,680	1,282	4,984	6,380	1,444	88	5,832	987	6,819	2,550	673	2,075	...	298		
<b>GOODS TRAINS.</b>																			
1899	198	1,743	1,023	2,035	1,736	12,695	8,269	2,034	880	6,429	929	7,358	2,153	532	1,999	30	330		
1900	284	2,733	1,475	2,243	1,815	14,034	8,947	2,680	1,221	5,482	973	6,455	2,301	493	2,050	55	412		
1901	272	2,786	†	1,621	1,658	16,357	9,398	3,900	846	6,753	1,083	7,836	2,601	213	2,252	253	254		
1902	192	3,232	†	1,747	1,822	16,181	10,439	4,024	844	7,659	1,271	8,930	2,686	259	3,410	165	237		
1903	106	3,754	†	(a)1,785	1,808	15,656	10,935	4,121	1,080	8,949	1,318	10,267	2,600	398	3,017	227	275		
<b>TOTAL ENGINE-MILEAGE.</b>																			
1899	453	2,581	1,653	3,491	2,842	18,176	13,400	3,281	1,103	10,196	1,438	11,634	3,581	718	3,925	51	662		
1900	504	3,678	2,172	3,814	2,887	20,010	14,199	3,401	1,485	9,517	1,517	11,034	4,075	697	3,581	83	746		
1901	467	4,173	†	3,273	2,870	21,033	14,897	5,473	1,164	11,992	1,635	13,627	4,771	777	3,972	152	566		
1902	460	4,806	†	3,377	3,068	21,235	16,589	5,476	1,193	12,746	2,092	14,838	4,988	888	4,595	165	520		
1903	579	5,305	†	(a)3,405	3,090	20,540	17,315	5,565	1,168	14,781	2,805	17,086	5,150	1,071	5,092	227	568		

† Transferred partly to the Bengal-Nagpur railway and partly to the Madras railway from the 1st January 1901.  
 ‡ Excluding the Gwalior Light 2'0" gauge railway.  
 ¶ Includes the Gwalior Light 2'0" gauge railway.  
 (a) Includes the Godhra-Rutlam-Nagda railway.

**DIX 19.**  
in Report for 1902.)  
thousands of miles.  
24 of Report.)  
letters used to denote railways.

**Appendix 19.**  
**Train and Engine-mileages.**

3' 3 3/4"													Total of 5' 6" gauge rail-ways.	Total of 3' 3 3/4" gauge rail-ways.	Total 2' 6" and 2' 0" gauge rail-ways.	TOTAL.	GAUGE			
15	16	17 (a) & (b).	4 (b) to (e).	8 (c).	18 (a) to (c).	7 (d) & (e).	19 (a) & (b).	3 (b) & (g) to (i).	20 (a) to (e).	21 (a) to (g).	21 (h).	22					NUM-BER.			
B.	D.	D. S.	E. B. S.	H. G. V.	J. B.	N. & S. C.	R. and K.	B. M.	S. I.	S. M.	W. I. P.	U. C.	Calendar year.							
<b>TRAIN-MILEAGE.—PASSENGER TRAINS.</b>																				
896	}	}	}	278	...	4	18	10	663	1,198	300	33	1	13,384	3,569	86	17,039	1899		
392				358	...	4	23	12	651	1,200	434	41	...	...	14,119	3,905	90	18,114	1900	
412				385	1	11	25	15	651	943	656	10	...	...	15,627	3,912	162	19,701	1901	
667				406	7	13	23	18	684	852	620	...	1	...	16,975	4,563	170	21,708	1902	
850				422	4	15	34	16	901	912	616	...	2	...	20,941	4,763	185	25,689	1903	
<b>GOODS TRAINS.</b>																				
332	}	}	}	94	727	...	169	12	179	3,348	1,110	1,091	83	3	22,206	8,235	171	30,612	1899	
533				86	849	51	165	15	170	4,311	730	1,226	43	15	24,644	9,373	235	34,252	1900	
634				94	838	88	124	17	168	3,508	660	671	23	1	26,123	7,982	169	34,274	1901	
795				85	820	224	95	32	189	2,822	726	915	...	...	27,832	8,004	183	36,019	1902	
907				79	901	259	103	22	173	1,855	759	765	...	...	28,860	7,223	220	36,308	1903	
<b>MIXED TRAINS.</b>																				
1,915	}	}	}	142	986	13	373	...	377	2,684	1,002	1,418	...	47	15,746	11,055	118	26,889	1899	
2,069				141	994	318	386	...	381	2,743	1,227	1,770	...	50	16,401	12,325	101	28,827	1900	
2,116				144	1,052	566	674	...	402	2,829	1,661	1,820	57	50	17,215	14,107	239	31,561	1901	
1,870				134	1,056	576	771	44	401	3,020	1,804	2,100	...	51	17,952	14,598	231	31,781	1902	
2,009				142	1,125	568	831	91	412	3,036	1,902	2,114	...	50	15,732	15,438	218	31,438	1903	
<b>TOTAL TRAIN—MILEAGE.††</b>																				
2,946	15	237	2,039	23	574	26	580	6,793	3,396	2,888	116	51	52,793	23,783	631	77,207	1899			
3,415	15	227	2,259	457	627	38	580	7,771	3,254	3,493	84	66	56,789	26,625	709	84,193	1900			
3,594	15	255	2,325	755	843	42	604	7,125	3,343	3,231	90	52	60,578	26,973	716	88,265	1901			
3,743	15	219	2,335	807	949	99	635	6,660	3,539	3,635	...	52	63,760	28,012	725	92,527	1902			
4,321	16	221	2,494	831	957	147	626	5,916	3,819	3,559	...	52	66,557	28,592	811	95,960	1903			
<b>ENGINE-MILEAGE.—PASSENGER TRAINS.</b>																				
1,307	}	}	}	47	849	25	186	13	166	2,206	1,710	798	33	28	22,015	9,233	}	31,248	1899	
1,344				57	892	189	196	23	179	2,264	1,829	1,157	41	23	23,671	10,246		33,917	1900	
887				48	1,437	315	352	25	279	2,238	1,773	673	37	56	24,667	10,216		34,883	1901	
645				45	1,462	362	419	22	298	2,950	1,754	683	...	56	25,883	10,811		36,694	1902	
831				47	1,468	374	444	33	375	(b)2,949	1,863	600	...	55	27,151	12,000		39,431	1903	
<b>GOODS TRAINS.</b>																				
2,264	}	}	}	286	1,724	...	420	13	538	5,563	2,204	2,452	90	30	40,179	18,475	}	58,654	1899	
2,793				296	1,927	358	461	17	532	6,586	1,804	3,758	45	49	43,588	20,636		64,224	1900	
4,004				312	1,441	507	487	19	466	5,863	1,878	2,952	55	...	47,275	20,955		66	68,296	1901
3,953				302	1,427	534	566	85	484	4,440	2,130	3,411	...	...	50,147	21,408		65	71,620	1902
4,429				308	1,583	553	568	134	391	(b)3,940	2,345	3,406	...	...	52,112	21,574		440	74,126	1903
<b>TOTAL ENGINE-MILEAGE.</b>																				
3,571	15	333	2,573	25	606	26	704	7,769	3,914	3,250	123	58	62,195	27,723	637	90,555	1899			
4,187	15	353	2,819	497	657	40	711	8,850	3,623	3,915	86	72	67,259	30,887	716	98,862	1900			
4,391	15	360	2,878	822	839	44	745	8,101	3,651	3,625	92	56	71,943	31,086	731	103,760	1901			
4,604	15	347	2,889	896	995	107	782	7,390	3,884	4,093	...	56	76,030	32,235	739	109,004	1902			
5,260	16	355	3,071	927	1,012	167	766	(b)6,789	4,208	4,006	...	55	79,263	33,590	874	113,727	1903			

\*\* Including the Cawnpore-Burhwal 3' 3 3/4" gauge link.  
†† Includes miscellaneous train-mileage.  
} Information not available.  
(b) Excludes the Godhra-Rutlam-Nagda railway.

Appendix 20.  
Unit and ton-mileages.

APPEN

(Appendix 20 in Report)

Unit-mileage of passengers and ton-mileage of

(Referred to in paragraph

N.B.—A reference to Appendix 1 will furnish the key to the

GAUGE.	5' 6"														10 a & b.	11 a & b.	12 a to c.	13 a & b.	14 a to d.			
	CLASS: No.	1	2 a, b & d	3 a, c to f. m & n.	4 a	5 a to d	6 a to f.	7 a to c.	8 a & b.	9 a to h.			O. and R.	A. B.						B. and N. W. a & b.	B. D.	B. G. J. P.
		Calendar year.	B. C.	B. N. system.	E. C.	B. B. & C. I.	E. B. S.	E. L.	G. I. P.	M.	N. G. S.	Comm. section.										
UNIT MILEAGE—1st CLASS.																						
1899	5 121	5 751	623	5 3,100	5 1,763	5 8,453	5 12,037	5 3,659	5 709	6,106	835	6,043	5 2,051	233	5 7,583	12	5 379					
1900	5 100	5 1,006	933	5 3,060	5 1,611	5 8,661	5 11,923	5 3,413	5 523	5,893	629	6,522	2,541	250	5 773	15	5 308					
1901	82	1,543	†	2,546	1,379	8,370	11,500	3,727	538	6,392	737	7,129	2,592	265	787	12	318					
1902	95	2,075	†	2,675	1,537	10,397	13,990	4,391	626	6,697	780	7,477	3,048	310	837	11	283					
1903	107	2,436	†	2,720	1,674	10,431	14,026	4,192	620	7,604	800	8,364	3,361	351	823	13	309					
2ND CLASS.																						
1899	5 784	5 2,059	1,640	5 21,602	3,696	24,451	46,105	11,909	5 3,462	16,499	1,513	18,011	5 5,951	478	5 1,043	35	5 2,597					
1900	5 595	5 2,154	2,033	5 20,814	3,492	26,270	38,637	11,600	5 3,188	16,755	1,391	18,146	7,875	491	5 1,340	29	5 2,072					
1901	583	5,438	†	15,632	3,047	27,332	45,750	10,508	3,219	21,122	1,023	22,745	8,900	522	1,652	31	2,039					
1902	558	5,595	†	15,328	3,832	29,335	48,078	11,880	3,272	22,772	2,141	24,913	10,695	630	1,906	40	1,773					
1903	578	5,600	†	15,720	4,184	27,918	55,325	12,234	3,891	20,961	2,093	23,079	10,379	712	2,022	45	2,042					
INTERMEDIATE CLASS.																						
1899	5 1,911	5 2,633	858	5 42,396	19,780	76,556	67,945	...	5 8,083	48,209	3,063	51,391	5 15,372	...	5 2,213	35	5 76					
1900	5 1,978	5 3,502	1,456	5 47,475	18,313	84,798	73,878	...	5 6,776	56,585	3,237	60,872	17,099	80	5 3,423	31	5 1,624					
1901	2,333	11,097	†	43,547	19,648	89,109	82,405	1,782	5 9,815	70,967	3,578	74,545	22,764	243	4,939	45	2,092					
1902	2,437	10,923	†	45,568	21,056	92,383	89,891	2,031	5 10,029	71,020	4,839	76,262	27,502	308	5,814	84	2,206					
1903	2,627	11,099	†	45,505	23,714	99,800	87,526	2,878	5 9,442	75,426	4,976	81,402	35,930	351	7,610	117	2,584					
3RD CLASS.																						
1899	5 35,918	5 173,349	143,825	5 241,928	166,475	1,100,173	637,388	229,751	5 47,760	717,665	83,095	800,760	5 252,917	52,477	5 234,508	2,587	5 62,145					
1900	5 37,362	5 260,384	172,781	5 281,390	168,437	1,163,946	679,235	276,735	5 41,042	767,853	81,156	844,008	275,237	55,479	5 268,990	2,960	5 66,710					
1901	39,930	413,292	†	299,357	172,037	1,283,216	677,255	432,470	5 53,136	831,456	98,331	930,789	340,723	65,988	5 347,120	4,968	59,980					
1902	40,078	405,363	†	273,549	169,177	1,210,721	660,017	424,583	5 53,319	866,453	104,674	971,447	329,010	63,386	5 388,643	5,676	51,743					
1903	40,137	394,181	†	290,147	178,814	1,262,209	681,718	446,023	5 51,013	962,396	109,031	1,070,867	344,593	67,294	447,434	6,893	57,467					
SEASON AND VENDORS' TICKETS.																						
1899	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
1900	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
1901	1,092	799	†	43,035	13,313	16,376	37,114	9,052	376	...	...	...	...	...	85	...	79					
1902	1,163	1,443	†	46,105	12,008	18,004	35,552	10,294	768	...	...	...	...	...	66	...	50					
1903	1,359	1,680	†	50,967	12,613	17,257	35,469	11,441	624	...	...	...	...	...	68	...	134					
TOTAL UNIT-MILEAGE.																						
1899	39,734	178,793	143,825	309,105	191,684	1,209,633	663,455	241,919	60,914	799,609	83,206	878,715	5 276,291	53,190	5 238,346	2,609	65,197					
1900	40,635	266,045	172,781	349,649	191,903	1,303,596	703,492	241,896	64,169	847,085	91,463	938,548	303,342	56,270	5 274,466	3,035	66,712					
1901	40,030	432,166	†	337,167	172,037	1,429,216	677,255	432,470	5 53,136	831,456	98,331	930,789	340,723	67,079	5 364,643	5,056	64,678					
1902	44,331	435,302	†	393,225	206,610	1,360,830	662,018	453,118	5 64,013	967,551	112,534	1,080,085	369,245	64,634	5 397,376	5,811	54,025					
1903	44,808	415,176	†	405,059	216,199	1,417,665	674,084	476,708	5 66,680	1,067,277	115,955	1,183,233	394,233	68,708	469,027	7,067	62,566					
FREIGHT TON-MILEAGE.—COACHING.																						
1899	3,719	11,790	9,440	24,294	12,990	89,279	54,043	18,169	4,443	56,247	6,449	62,625	116,816	3,521	15,136	...	4,305					
1900	2,728	17,468	11,600	27,165	13,121	99,056	57,235	21,727	3,736	64,681	6,926	67,607	20,958	3,699	17,368	...	4,049					
1901	2,942	28,430	†	28,676	14,163	107,080	65,935	30,001	4,755	65,174	7,899	73,073	25,579	4,047	22,358	††	4,229					
1902	2,948	28,113	†	29,386	14,064	102,226	70,127	32,427	5,010	68,772	8,408	77,239	25,654	4,291	25,102	...	3,716					
1903	2,969	27,176	†	29,662	15,034	107,828	70,919	33,603	4,843	77,551	8,371	85,922	27,353	4,638	29,128	...	4,177					
GOODS.																						
1899	9,918	228,627	93,168	339,402	336,442	1,852,679	905,331	159,429	121,151	620,625	59,963	679,488	1203,458	33,906	149,985	...	17,412					
1900	15,920	383,691	162,050	374,854	141,904	2,024,307	975,654	188,242	92,656	639,685	66,510	696,175	100,291	30,714	156,391	...	20,653					
1901	12,280	230,626	†	307,369	131,327	2,149,247	1,067,031	306,209	107,030	1,047,284	71,696	1,118,980	230,459	30,517	166,040	...	13,914					
1902	10,916	306,812	†	374,954	156,920	2,040,472	1,262,128	291,433	114,290	1,000,690	71,661	1,072,421	244,468	29,360	172,119	...	12,190					
1903	15,620	362,087	†	291,571	153,624	2,227,443	1,223,647	283,145	105,813	1,249,298	66,183	1,315,469	267,503	36,168	213,814	...	15,167					
TOTAL FREIGHT TON-MILEAGE.																						
1899	12,637	240,417	102,637	363,703	149,432	1,941,958	959,374	177,599	126,594	876,872	65,311	942,183	1223,274	37,427	165,121	...	21,717					
1900	18,646	401,659	173,650	402,019	159,725	2,123,393	1,032,899	179,969	96,392	700,340	63,436	763,742	211,241	34,413	173,743	...	25,008					
1901	15,262	269,094	†	336,065	145,439	2,236,307	1,122,966	336,210	111,765	1,112,459	79,091	1,191,463	265,016	31,564	187,407	...	16,179					
1902	13,862	334,925	†	304,320	170,694	2,142,698	1,242,255	322,910	110,290	1,069,632	80,027	1,149,659	270,152	32,611	197,311	...	15,915					
1903	18,609	399,265	†	324,233	168,658	2,335,370	1,264,636	310,743	110,693	1,326,947	74,664	1,401,411	294,658	40,789	242,942	...	19,364					
GROSS TON-MILEAGE (FREIGHT AND DEAD WEIGHT).—COACHING.																						
1899	63,905	231,010	185,437	361,741	234,047	1,388,190	1,147,205	240,721	67,319	961,080	123,203	1,084,283	1354,329	47,995	197,499	...	50,421					
1900	42,306	250,822	210,012	396,740	249,256	1,432,274	1,215,362	281,043	100,688	995,769	129,872	1,125,761	110,141	47,628	227,625	...	49,545					
1901	46,800	464,912	†	421,951	252,207	1,626,908	1,322,051	418,638	79,740	1,114,463	147,049	1,261,512	491,726	63,109	225,437	...	4,137					
1902	49,053	517,561	†	440,048	259,891	1,745,220	1,456,365	433,933	85,359	1,299,976	169,120	1,379,096	526,989	69,957	351,634	...	46,693					
1903	64,739	503,404	†	453,669	271,635	1,944,669	1,514,993	503,279	86,153	1,318,934	188,506	1,507,440	503,260	75,713	378,874	...	49,535					
GOODS.																						
1899	41,965	668,341	276,919	917,115	408,776	4,131,453	2,535,031	531,185	310,736	2,236,636	208,935	2,445,771	1,883,060	107,310	338,715	...	52,688					
1900	63,616	991,849	462,514	1,003,439	444,683	4,602,940	2,915,824	531,638	450,042	1,702,564	207,471	1,910,035	653,353	85,091	335,696	...	64,505					
1901	41,395	731,054	†	708,804	396,594	4,817,747	3,407,895	975,400	293,023													

DIX 20.

(for 1903.)

coaching and goods in thousands of miles.

24 of Report.)

Letters used to denote railway systems.

Appendix 20  
Unit and ton-mileages

3' 3 1/2"													Total of 5' 6" gauge railways.	Total of 3' 3 1/2" gauge railways.	Total 2' 6" and 2' 0" gauge railways.	TOTAL.	Gauge No.	Calendar year.
15	16	17 a & b.	4 b to c.	8 c.	18 a to c.	7 d & c.	19 a & b.	3 b & g to	20 a to c.	21 a to g.	21 h.	22						
B.	D.	D. S.	E. B. S.	H. G. V.	J. B.	N. & S. C.	R. and K.	R. M.	S. I.	S. M.	W. I. P.	U. C.						
UNIT MILEAGE—1ST CLASS.																		
1,493	5	92	765	58	98	29	243	1,890	1,286	1,382	29	29	38,669	8,545	279	49,693		
1,639	5	83	790	149	76	229	229	1,758	1,394	1,695	31	30	39,781	9,013	287	49,061		
1,680	5	81	891	353	259	69	288	1,900	1,432	1,646	34	27	39,200	9,871	324	49,395		
1,591	5	78	890	422	295	80	289	2,406	1,682	1,846	31	31	46,241	11,021	318	57,580		
2,132	5	78	1,013	321	359	110	287	2,570	1,963	1,643	47	47	47,981	12,039	393	60,413		
2ND CLASS.																		
6,170	...	67	2,702	34	482	47	1,011	6,985	5,030	5,285	154	67	141,340	32,166	971	174,477		
6,689	...	65	2,527	817	475	111	1,108	6,160	5,811	5,448	185	62	135,193	33,385	907	169,435		
7,354	...	63	2,962	1,968	1,352	134	1,813	8,009	5,682	5,055	168	75	143,613	39,588	1,104	183,504		
5,505	...	64	2,827	2,328	1,998	246	1,918	7,647	5,991	6,464	168	86	168,476	38,901	1,063	208,440		
6,691	...	64	3,334	1,952	1,489	447	1,429	7,849	7,364	5,592	168	100	169,098	41,182	1,292	201,572		
INTERMEDIATE CLASS.																		
5,287	...	...	8,776	...	...	...	461	17,852	...	...	...	98	287,743	34,778	1,235	323,756		
...	...	...	9,557	...	...	...	464	18,771	...	...	...	124	313,747	34,044	1,323	349,114		
...	...	...	11,672	...	...	...	643	20,515	...	...	...	129	359,873	40,198	62	400,133		
...	...	...	11,523	...	...	...	612	19,445	...	...	...	145	377,577	40,187	...	417,714		
...	...	...	13,058	...	...	...	539	19,735	...	...	...	173	399,891	44,767	33	444,691		
3RD CLASS.																		
287,580	1,063	4,844	1,138,377	5,770	47,346	5,501	38,623	5,524,001	3,381,085	1,137,157	2,959	7,978	3,731,234	1,904,921	12,287	5,648,442		
287,879	1,108	5,528	1,161,733	5,27,763	41,691	5,882	40,398	5,504,301	3,435,439	1,218,030	3,189	7,132	4,140,737	2,119,208	12,195	6,272,140		
296,885	1,111	4,988	1,081,148	61,847	73,087	1,101	50,345	5,912,778	457,826	233,815	3,253	8,399	4,567,214	2,429,020	20,707	7,039,950		
314,819	1,111	5,224	1,177,815	63,597	73,749	7,132	50,413	5,717,108	499,402	249,378	3,253	8,229	4,535,243	2,505,314	14,294	7,054,851		
376,415	1,111	5,213	1,194,769	69,902	80,703	15,563	43,486	6,753,322	576,943	265,920	3,253	8,329	4,765,102	2,775,371	15,357	7,545,830		
SEASON AND VENDORS' TICKETS.																		
649	...	...	427	236	...	...	15	194	4,972	324	...	...	120,057	6,981	77	127,095		
708	...	...	416	374	...	...	23	151	5,501	329	...	...	125,337	7,617	...	132,954		
813	...	...	415	369	...	...	133	200	1,727	356	...	...	131,830	4,314	...	136,144		
TOTAL UNIT MILEAGE																		
230,499	1,063	5,023	1,500,620	812	47,924	577	40,338	5,511,629	3,877,401	1,438,904	3,142	8,172	4,200,186	1,980,410	14,772	6,195,358		
236,106	1,111	5,676	1,747,607	28,729	42,242	1,063	42,165	5,900,990	442,634	225,071	3,405	7,348	4,629,438	2,195,650	14,712	6,839,800		
306,578	1,111	5,131	1,640,038	64,403	74,698	1,310	52,609	6,311,636	469,792	240,743	3,465	8,630	5,260,156	2,524,647	22,274	7,797,077		
322,623	1,111	5,366	1,934,471	68,721	75,440	7,480	53,232	6,767,767	511,576	258,037	3,465	8,401	5,262,874	2,602,390	15,675	7,871,539		
366,031	1,111	5,355	2,131,179	61,243	82,681	16,253	50,740	6,065,676	587,977	263,501	3,465	8,649	5,493,902	2,877,590	17,075	8,368,567		
FREIGHT TON-MILEAGE—COACHING.																		
17,920	...	...	9,686	...	3,258	...	2,689	37,512	24,293	10,201	...	554	308,637	129,075	...	437,762		
21,766	...	...	11,079	...	2,854	...	2,913	35,836	27,884	15,344	...	477	342,829	143,163	...	485,992		
22,785	...	...	12,106	4,162	5,016	106	3,438	41,360	29,546	18,283	...	661	380,643	166,291	...	546,933		
21,127	...	...	12,706	4,607	5,249	493	3,519	39,756	32,204	17,844	...	563	397,171	171,262	...	568,433		
24,955	...	...	14,203	4,186	5,657	1,043	3,369	42,269	36,812	18,054	...	682	405,501	189,071	122	594,574		
GOODS.																		
125,056	...	...	78,606	...	31,896	...	25,689	614,611	92,252	167,051	...	1,331	4,929,120	1,237,797	...	6,166,917		
155,473	...	...	91,628	...	33,297	...	24,663	646,018	94,838	170,287	...	2,697	1,427,029	5,219,444	...	6,646,473		
171,176	...	...	85,847	21,914	39,350	253	24,318	606,245	110,866	135,434	3,362	1,693	5,658,938	1,402,927	...	7,061,865		
180,253	...	...	94,046	26,917	37,371	1,137	28,629	531,677	124,577	159,002	...	1,557	5,774,884	1,397,744	...	7,172,628		
181,509	...	...	111,135	27,707	43,221	2,702	28,162	414,581	149,265	162,724	...	764	6,238,981	1,386,044	1,942	7,625,967		
TOTAL FREIGHT TON-MILEAGE.																		
142,076	...	...	88,292	...	35,154	...	28,377	552,123	116,545	177,255	...	1,985	5,237,907	1,368,872	...	6,604,679		
177,239	...	...	102,707	...	36,141	...	27,396	691,854	123,722	195,601	...	3,374	5,562,273	1,570,192	...	7,132,465		
193,961	...	...	97,953	26,076	37,366	359	27,806	647,605	140,413	151,717	3,626	2,193	6,039,580	1,569,218	...	7,608,798		
201,380	...	...	106,753	31,524	42,520	1,630	32,149	671,433	156,781	176,846	...	2,125	6,162,055	1,569,006	...	7,731,061		
206,524	...	...	125,338	31,953	47,678	3,745	31,631	450,980	186,077	180,778	...	1,346	6,444,482	1,575,115	2,064	8,221,661		
GROSS TON-MILEAGE (FREIGHT AND DEAD WEIGHT)—COACHING.																		
225,786	...	...	115,630	...	33,193	...	33,914	345,031	259,239	129,774	5,406	5,799	5,351,086	1,449,187	...	6,800,273		
221,058	...	...	131,409	26,050	32,699	...	33,536	351,418	280,060	184,292	5,587	5,700	5,722,593	1,603,714	...	7,326,397		
243,119	...	...	141,244	60,681	66,301	1,568	37,780	364,568	285,752	208,038	5,358	6,014	6,391,357	1,766,104	...	8,147,469		
289,708	...	...	135,916	64,597	73,674	5,490	30,526	386,055	298,024	231,507	6,025	6,025	6,952,527	2,005,648	...	9,958,193		
354,693	...	...	166,382	65,185	79,415	11,399	41,361	469,513	320,174	233,469	6,534	6,534	7,443,146	2,243,302	774	9,687,222		
GOODS.																		
347,916	...	...	232,335	...	81,184	...	65,101	1,181,587	278,296	424,028	15,329	4,340	12,780,982	3,128,805	...	15,909,787		
309,626	...	...	253,523	49,909	61,653	...	61,902	1,452,295	244,772	457,115	7,109	6,460	13,729,795	3,501,728	...	17,231,511		
436,637	...	...	261,690	73,045	69,367	1,301	61,053	1,312,213	268,955	363,056	8,823	4,716	14,565,820	3,391,212	...	17,956,732		
477,007	...	...	271,764	82,731	99,031	5,476	68,039	1,156,578	318,097	420,523	...	4,392	15,317,359	3,447,216	...	18,764,575		
615,325	...	...	304,892	86,712	108,425	12,999	70,068	873,835	374,801	428,937	...	2,783	16,266,692	3,410,142	446	19,677,180		
TOTAL GROSS TON-MILEAGE (FREIGHT AND DEAD WEIGHT).																		
573,732	...	...	347,965	...	114,377	...	97,915	1,527,159	537,635	553,803	20,735	10,139	16,132,068	4,577,992	...	20,710,060		
621,684	...	...	333,932	75,959	114,563	...	95,439	1,803,703	530,633	641,407	12,696	14,166	19,452,368	5,105,440	...	24,557,808		
679,756	...	...	392,934	133,720	154,668	2,869	98,832	1,676,780	574,707	571,093	14,181	10,730	20,956,895	5,147,316	...	26,104,201		
786,775	...	...	407,580	147,298	173,705	10,956	107,565	1,552,933	614,131	681,030	...	10,417	22,289,866	5,452,683	...	27,722,769		
876,013	...	...	461,374	151,897	187,940	24,398	111,419	2,142,346	700,975	641,306	...	9,317	23,709,738	5,653,444	1,210	29,363,402		

\* Including the Cawnpore-Burhwal 3' 3 1/2" gauge link.  
 † Information not available.  
 c Figures included under different classes.  
 d Third class by other than mail trains.

Appendix 21.  
Vehicle mileage.

Loaded and empty vehicle mileage

(Referred to in par

NUMBER.		RAILWAYS.	COACHING.															Foreign		
Main head.	Sub-head.		HOME VEHICLE MILEAGE OF HOME LINE.															1900.		
			1899.			1900.			1901.			1902.			1903.			Loaded.	Empty.	Total.
		Loaded.	Empty.	Total.	Loaded.	Empty.	Total.	Loaded.	Empty.	Total.	Loaded.	Empty.	Total.	Loaded.	Empty.	Total.	Loaded.	Empty.	Total.	
1	(a)	5' 6" gauge.* Bengal Central	3,344	388	3,730	3,120	301	3,511	3,004	315	3,319	2,902	516	3,418	3,236	568	3,802	1	...	1
2	(a)	Bengal-Nagpur	12,417	3,260	15,677	15,347	3,449	18,796	23,198	5,023	28,218	27,529	8,178	35,705	25,063	8,808	33,959	663	206	1,069
3	(a) to (f)	Bombay, Baroda and Central India.	20,728	2,044	22,772	23,583	3,073	25,656	24,874	3,126	28,000	25,420	3,089	28,489	26,028	3,251	29,279	03	21	64
4	(a)	Eastern Bengal State.	14,251	1,366	15,617	14,969	1,338	16,307	14,932	2,128	17,110	15,315	2,004	17,319	15,697	1,739	17,436	6	2	10
...	...	East Coast†	10,293	1,944	12,237	11,613	2,380	14,023	...	...	...	...	...	...	...	...	...	206	6	214
5	(a) to (d)	East Indian	84,376	18,113	102,489	85,781	19,479	105,260	93,085	19,409	112,494	94,698	21,030	115,728	94,168	20,560	114,728	1,388	239	1,626
6	(a)	Great Indian Peninsula.	49,483	...	49,483	53,476	...	53,476	71,487	...	71,487	76,008	15,884	91,892	78,993	15,880	94,873	3,916	223	4,139
6	(b) to (c)	Indian Midland†	14,624	...	14,624	15,103	...	15,103	...	...	...	...	...	...	...	...	...	1,094	443	1,537
7	(a) to (e)	Madras	14,867	6,521	21,388	16,175	6,850	23,025	23,390	9,453	33,843	24,430	9,280	33,710	25,755	9,191	34,946	486	69	555
8	(a) & (b)	Nizam's Guaranteed State.	4,509	79	4,588	4,981	85	4,966	7,415	82	7,397	6,765	103	6,867	6,773	101	6,874	128	70	198
9	(a) to (e)	North Western State.	63,095	17,197	80,292	64,477	16,731	81,208	70,049	10,756	80,805	73,701	22,972	96,673	82,678	21,408	104,280	711	146	857
10	(a) & (b)	Oudh and Rohilkhand State.	15,253	4,803	20,056	21,370	5,490	26,860	23,307	6,025	29,332	25,242	6,301	31,543	27,339	6,269	33,609	900	135	1,034
11	(a) & (b)	3' 3 1/2" gauge. Assam-Bengal	4,921	710	5,631	4,997	606	5,603	6,710	548	7,258	6,759	498	7,247	7,391	1,341	8,732	...	...	...
12	(a) to (c)	Bengal and North-Western.	23,930	143	24,073	27,798	106	27,894	32,788	2,356	35,044	39,333	6,898	46,141	42,910	7,571	50,481	...	...	...
14	(a) to (d)	Bhavnagar-Gondal-Junagad-Porbandar.	5,868	914	6,802	6,043	911	6,954	5,908	940	6,848	5,704	918	6,622	4,995	869	5,864	29	...	29
15	(a)	Burma	27,756	4,687	32,443	28,592	4,542	33,134	28,627	7,978	36,605	29,379	4,778	34,157	32,832	6,968	39,800	...	...	...
16	(a)	Deoghur	...	...	...	...	...	...	...	...	...	8	2	10	...	...	...	...	...	...
4	(b) to (d)	Eastern Bengal State.	431	1,591	17,022	16,341	1,872	18,013	16,318	2,582	18,880	16,199	2,319	18,518	18,519	2,608	21,127	...	...	...
8	(c)	Hyderabad-Godavari Valley.	...	...	...	2,073	22	2,095	5,104	85	5,189	6,200	94	6,294	6,302	64	6,368	...	...	...
18	(a) to (c)	Jodhpur-Bikaner	348	17	3,585	3,664	12	3,676	6,384	85	6,419	8,373	36	8,409	9,070	35	9,105	285	21	306
8	(g) to (i)	Rajputana-Malwa	773	195	48,988	49,042	142	49,184	55,894	187	56,071	56,593	339	56,932	60,416	257	60,673	623	25	648
19	(a) & (b)	Rohilkund and Kumaon.	143	332	4,775	4,289	358	4,647	4,342	1,003	5,345	4,677	1,098	5,713	4,846	1,035	5,881	22	...	22
20	(a) to (e)	South Indian	32,674	38	32,912	34,414	47	34,461	34,950	39	34,989	36,200	49	36,339	40,171	55	40,226	3	1	4
21	(a) to (g)	Southern Mahratta	14,013	1,799	15,812	19,701	2,428	22,129	21,617	2,205	23,822	24,616	5,123	29,739	24,890	5,324	30,214	74	23	97
21	(h)	West of India Portuguese.‡	...	...	...	...	...	...	522	...	522	...	...	...	...	...	...	...	...	...
22	(a)	Udaipur-Chitor	643	2	645	675	1	676	662	19	681	634	29	663	691	2	693	19	2	21
2	(b) & (d)	2' 6" gauge. Raipur-Dhamtari	...	...	...	...	...	...	239	45	284	219	92	311	244	94	338	...	...	...
9	(f) & (g)	Nowshera-Durgal	...	...	...	...	...	...	479	83	562	712	* 185	607	1,148	312	1,460	...	...	...
TOTAL COACHING			402,482	86,146	558,609	527,544	69,313	596,857	575,323	74,331	649,654	607,795	111,630	719,425	640,355	114,398	754,751	10,878	1,633	12,511

\* Includes particulars relating to branches worked on different gauges to the  
 † Transferred partly to the Bengal-Nagpur railway and partly to the Madras  
 ‡ Included with the Great Indian Peninsula railway system from 1901.

DIX 21.  
in Report for 1902.)  
in thousands of miles.  
graph 24 of Report).

Appendix 21.  
Vehicle mileage.

COACHING.

VEHICLE MILEAGE ON HOME LINE.												TOTAL COACHING VEHICLE MILEAGE ON HOME LINE.					HOME VEHICLE MILEAGE ON FOREIGN LINES.					NUM- BER.
1900.			1901.			1902.			1903.			1899.	1900.	1901.	1902.	1903.	1899.	1900.	1901.	1902.	1903.	
Loaded.	Empty.	Total.	Loaded.	Empty.	Total.	Loaded.	Empty.	Total.	Loaded.	Empty.	Total.											
1	...	1	...	...	...	...	...	...	...	...	...	3,731	3,512	3,340	3,418	3,802	...	...	...	...	...	1
1,070	473	1,543	3,260	553	3,813	3,752	372	4,124	3,618	318	3,936	16,752	20,339	32,031	39,829	37,893	1,056	1,000	2,734	2,889	2,919	2
45	13	58	38	8	46	53	13	66	55	8	63	22,855	25,714	28,046	28,555	28,342	64	74	64	60	65	3
5	2	7	6	2	8	4	2	6	9	3	11	15,027	16,314	17,118	17,325	17,447	11	11	12	22	18	4
200	04	324	...	...	...	...	...	...	...	...	...	12,451	14,347	...	...	...	2	353	...	...	...	...
3,668	684	3,552	1,903	738	2,641	3,033	920	3,953	3,784	968	4,752	104,115	108,812	115,135	119,681	119,480	3,384	3,449	3,954	4,977	7,027	5
3,386	230	3,486	5,623	163	5,785	6,968	320	7,288	8,151	346	8,497	53,624	56,962	77,272	99,270	103,370	3,531	4,906	4,926	5,057	5,421	6
1,273	511	1,783	...	...	...	...	...	...	...	...	...	16,161	16,886	...	...	...	1,218	932	...	...	...	6
164	64	238	2,176	69	2,245	1,912	666	2,578	1,720	730	2,450	21,943	23,263	35,068	36,288	37,396	1,621	1,317	3,343	4,543	4,381	7
119	55	174	131	55	186	117	49	166	125	61	186	4,786	5,140	7,683	7,033	7,060	236	283	253	518	366	8
864	192	1,056	1,807	495	2,302	1,345	484	1,829	1,315	407	1,722	91,140	82,264	83,107	99,502	106,003	1,698	2,050	1,824	2,555	2,473	9
1,204	185	1,389	2,532	517	3,049	2,262	506	2,768	2,490	512	3,002	24,159	28,249	32,381	34,311	36,610	1,038	1,868	3,100	2,840	2,936	10
...	...	...	...	...	...	...	...	...	1	...	1	5,631	5,803	7,258	7,247	6,733	...	...	...	...	149	11
9	7	16	8	6	14	26	24	50	66	22	88	24,073	27,910	35,058	46,191	50,569	14	25	30	48	100	12
44	...	44	...	...	...	...	...	...	869	155	1,024	6,831	6,098	6,848	6,622	6,888	...	...	...	...	1,012	14
...	...	...	...	...	...	...	...	...	...	...	...	32,443	33,134	36,805	34,157	39,900	...	...	...	...	...	15
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	...	...	...	...	...	...	16
...	...	...	...	...	...	2	1	3	27	17	44	17,022	18,013	18,880	18,521	21,171	347	354	417	392	199	4
...	...	...	...	...	...	...	...	...	...	...	...	...	2,065	5,189	6,294	6,366	...	...	...	...	...	8
210	18	228	206	28	324	412	23	434	364	19	383	3,871	3,904	6,743	6,843	9,488	228	214	250	422	385	16
1,072	31	1,103	84	26	110	151	35	186	169	40	209	49,616	50,287	56,181	57,118	60,862	164	105	197	265	267	3
38	1	39	42	2	44	56	3	59	30	1	31	4,797	4,686	5,359	5,772	5,912	8	4	7	7	11	19
4	3	7	2	3	4	1	1	2	3	1	4	32,916	34,468	34,993	36,341	40,230	2	4	1	5	4	20
73	24	97	57	24	81	3	1	4	3	1	4	15,909	22,226	23,903	29,742	30,218	73	74	74	2	3	21
...	...	...	511	...	511	...	...	...	...	...	...	...	...	1,033	...	...	...	...	...	...	...	21
13	2	15	9	8	17	14	10	24	33	3	36	686	691	686	687	729	34	25	26	75	59	22
...	...	...	...	...	...	...	...	...	...	...	...	...	...	284	311	336	...	...	...	...	...	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	562	597	1,460	...	...	...	...	...	9
12,811	2,549	15,160	18,484	2,696	21,180	20,111	3,429	23,540	22,831	3,610	26,441	571,119	612,017	670,834	742,965	781,192	14,799	17,048	21,212	24,617	27,816	...

main line in cases in which separate statistics have not been maintained.

railway from the 1st January 1901.

Appendix 21.  
Vehicle mileage.

APPEN

(Appendix

Loaded and empty vehicle mileage

(Referred to-

Main head.	Sub-head.	RAILWAYS.	GOODS.																	
			HOME VEHICLE MILEAGE ON HOME LINE.															FOREIGN		
			1899.			1900.			1901.			1902.			1903.			1899.		
Loaded.	Empty.	Total.	Loaded.	Empty.	Total.	Loaded.	Empty.	Total.	Loaded.	Empty.	Total.	Loaded.	Empty.	Total.	Loaded.	Empty.	Total.			
1	(a)	5' 6" gauge.* Bengal Central	1,491	1,177	2,668	2,494	1,738	4,232	2,073	1,426	3,499	1,763	973	2,736	12,374	1,594	3,968	209	146	354
2	(a)	Bengal-Nagpur	19,310	10,011	29,321	27,069	16,441	43,510	30,244	15,809	46,053	34,669	16,129	50,798	35,004	16,176	51,240	6,454	4,453	10,907
3	(a) to (f)	Bombay, Baroda and Central India	43,238	16,997	60,235	45,290	25,126	70,416	35,554	10,828	46,382	30,934	7,631	38,565	33,101	19,545	42,646	2,871	1,124	3,795
4	(a)	Eastern Bengal State.	19,705	8,417	28,122	21,345	10,032	31,377	18,578	6,960	25,538	22,478	7,643	30,121	20,597	8,154	28,751	535	835	1,670
		East Coast†	8,482	3,694	12,176	13,013	7,436	20,449	...	...	...	...	...	...	...	...	...	1,672	1,543	3,215
5	(a) to (d)	East Indian	160,487	63,232	223,719	166,359	73,571	239,930	161,133	72,467	233,600	179,396	77,790	257,186	167,353	81,037	248,390	20,898	17,695	38,593
6	(a)	Great Indian Peninsula.	67,295	26,450	93,745	69,382	33,244	102,626	113,463	47,903	161,366	124,603	31,441	156,044	127,165	30,363	157,529	22,086	19,097	41,183
6	(b) to (e)	Indian Midland‡	13,901	7,906	21,807	18,766	12,927	30,793	...	...	...	...	...	...	...	...	...	7,126	6,154	13,280
7	(a) to (e)	Madras	24,735	7,652	32,387	23,490	6,973	30,463	35,530	11,659	47,189	38,323	11,355	49,707	36,763	11,363	48,126	1,161	1,153	2,314
8	(a) & (b)	Nizam's Guaranteed State.	7,021	3,177	10,198	8,410	4,378	12,788	4,723	3,700	8,423	5,534	3,638	9,172	5,696	3,702	9,398	5,343	4,123	9,466
9	(a) to (c)	North Western State.	108,353	41,459	149,812	87,822	23,734	111,556	124,882	53,296	178,178	126,223	44,842	171,065	150,371	61,000	212,061	2,934	2,745	5,679
10	(a) & (b)	Oudh and Rohilkhand State.	25,535	9,330	34,765	24,832	7,760	32,592	29,235	6,409	35,644	29,639	9,138	38,777	31,198	9,316	40,514	3,690	2,923	6,613
11	(a) & (b)	3' 3 1/2" gauge. Assam-Bengal	9,871	3,594	13,465	6,927	3,514	10,441	5,317	2,723	8,040	5,492	3,441	8,933	6,495	3,252	9,747	...	...	...
12	(a) to (c)	Bengal and North-Western.	25,340	14,411	39,751	26,221	16,169	42,390	30,908	14,475	45,373	33,211	12,271	45,482	41,000	14,651	55,741	378	271	649
14	(a) to (d)	Bhavnagar-Gondal-Junagadh-Porbandar.	4,908	2,325	7,233	5,597	3,653	9,250	3,890	1,484	5,374	3,527	1,740	5,267	3,876	1,735	5,611	47	54	101
15	(a)	Barma	31,612	13,015	44,627	37,037	15,115	52,152	38,644	14,502	53,146	37,675	16,363	54,038	40,116	16,528	56,644	...	...	...
16	(a)	Deoghur	...	...	...	...	...	...	...	...	...	8	...	8	...	...	...	...	...	...
4	(b) to (d)	Eastern Bengal State.	22,274	7,059	29,333	22,309	7,990	30,299	21,776	5,161	26,937	25,925	6,031	31,956	27,548	5,828	33,376	...	...	...
8	(c)	Hyderabad-Godavari Valley.	...	...	...	4,057	1,941	5,998	6,695	2,213	8,908	5,697	2,579	8,276	5,832	2,572	8,404	...	...	...
18	(a) to (c)	Jodhpur-Bikaner	1,796	691	2,487	2,356	1,242	3,598	3,630	1,924	5,554	5,172	2,305	7,477	5,871	2,298	8,169	4,265	2,879	7,144
3	(g) to (h)	Rajputana-Malwa	100,705	29,526	130,231	115,415	45,138	160,553	103,459	36,546	140,005	69,450	31,561	101,011	73,481	17,947	91,428	6,804	4,101	10,905
19	(a) & (b)	Rohilkhand and Kumaon.	4,753	3,221	7,974	4,429	2,640	7,069	4,685	2,368	7,053	4,759	2,602	7,361	4,605	2,530	7,135	376	281	657
20	(a) to (e)	South Indian	23,284	7,289	30,573	21,552	6,230	27,782	23,419	7,264	30,702	24,796	7,811	32,607	26,808	9,140	35,948	1,097	1,007	2,104
21	(a) to (g)	Southern Mahratta	64,085	15,243	79,328	36,924	17,769	54,693	80,843	19,176	100,019	35,907	11,293	47,200	37,272	9,492	46,764	632	267	799
21	(h)	West of India Portuguese.	...	...	...	...	...	...	168	49	217	...	...	...	...	...	...	...	...	...
22	(a)	Udaipur-Chitor	112	45	157	127	50	177	115	39	154	105	37	142	134	47	181	233	216	449
2	(b) & (d)	2' 6" gauge. Raipur-Dhamtari	...	...	...	...	...	...	214	134	348	164	78	242	170	81	251	...	...	...
9	(f) & (g)	Nowshera-Durgai	...	...	...	...	...	...	236	100	336	395	121	516	875	285	1,170	...	...	...
		TOTAL GOODS	759,253	294,722	1,053,975	788,243	338,510	1,126,753	829,333	335,687	1,165,020	865,903	308,746	1,174,649	687,813	319,393	1,007,206	68,680	71,056	139,736
		TOTAL COACHING AND GOODS	1,251,715	360,685	1,612,400	1,215,787	407,923	1,623,710	1,404,655	409,969	1,814,624	1,473,893	420,676	1,894,569	1,523,166	433,759	1,956,925	99,459	72,689	172,147

\* Includes particulars relating to branches worked on different  
 † Transferred partly to the Bengal-Nagpur railway and partly  
 ‡ Included with the Great Indian Peninsula railway system



**DIX 21—concluded.**  
 21 in Report for 1902.)  
 in thousands of miles.  
 in paragraph 24 of Report.)

**Appendix 21.**  
**Vehicle mileage.**

**GOODS.**

VEHICLE MILEAGE ON HOME LINES.												TOTAL GOODS VEHICLE MILEAGE ON HOME LINES.					HOME VEHICLE MILEAGE ON FOREIGN LINES.					Num. head.
1900.			1901.			1902.			1903.			1899.	1900.	1901.	1902.	1903.	1899.	1900.	1901.	1902.	1903.	
Loaded.	Empty.	Total.	Loaded.	Empty.	Total.	Loaded.	Empty.	Total.	Loaded.	Empty.	Total.											
153	143	301	243	193	430	203	193	407	163	143	306	3,022	4,523	3,929	3,143	4,276	120	601	534	219	411	1
11,400	9,312	20,712	4,127	2,783	6,910	4,978	2,708	7,771	4,593	2,532	7,123	40,223	64,321	52,963	56,469	58,388	18,936	20,651	25,534	30,903	33,510	2
3,774	2,639	6,413	663	603	1,271	1,819	1,402	3,021	1,051	1,041	2,092	63,920	77,019	47,653	41,586	44,738	3,215	3,089	5,220	5,716	4,521	3
896	698	1,594	918	918	1,836	923	913	1,836	946	931	1,877	29,792	33,173	27,330	31,956	30,828	1,609	1,076	1,727	1,786	1,773	4
2,682	2,213	4,895	...	...	...	...	...	...	...	...	...	15,391	25,344	...	...	...	3,868	8,546	...	...	...	...
26,053	20,608	46,661	35,059	19,783	54,842	28,416	20,766	49,182	33,429	22,366	55,795	262,072	282,590	283,444	306,368	304,185	34,103	49,294	25,726	28,620	31,425	5
23,434	21,070	44,504	24,449	19,796	44,245	33,474	28,254	61,728	31,994	20,297	52,291	134,928	142,130	205,831	217,772	215,820	18,495	19,394	10,357	15,602	12,607	6
11,998	7,382	19,380	...	...	...	...	...	...	...	...	...	35,087	40,273	...	...	...	12,668	11,459	...	...	...	6
3,075	2,060	5,135	7,013	6,871	13,884	3,954	3,540	7,503	4,849	4,752	9,601	34,701	34,593	61,072	57,210	59,727	3,150	2,717	5,131	8,063	8,100	7
7,396	6,315	13,711	4,810	3,163	7,973	5,099	3,596	8,695	4,636	2,818	7,454	19,664	26,439	16,404	17,867	16,812	6,476	7,393	9,305	8,512	9,309	8
2,778	2,580	5,358	2,853	2,503	5,356	3,967	3,470	7,437	4,190	3,399	7,589	155,491	116,934	183,534	178,502	219,540	12,558	7,575	14,606	12,568	8,016	9
4,348	2,671	7,019	6,770	3,807	10,577	7,767	3,572	11,339	5,770	3,777	9,547	41,377	39,611	48,221	50,116	50,033	29,581	20,501	35,804	43,385	32,462	10
...	...	...	...	...	...	...	...	...	107	108	215	13,445	10,441	8,040	8,933	9,982	...	...	...	...	108	11
450	225	675	613	506	1,119	897	678	1,575	1,513	1,082	2,595	40,400	43,058	46,497	46,958	53,336	7,479	7,584	3,876	9,019	5,985	12
44	40	84	44	47	91	55	62	117	321	225	546	7,335	9,340	5,465	5,394	6,187	3	...	...	17	281	14
...	...	...	...	...	...	...	...	...	...	...	...	41,027	52,152	53,146	59,938	56,643	...	...	...	...	...	15
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	...	...	...	...	...	...	16
...	...	...	423	421	843	860	836	1,696	1,001	956	1,957	30,333	29,699	27,780	33,552	35,328	221	366	364	433	543	4
...	...	...	...	...	...	...	...	...	...	...	...	...	5,998	8,908	8,476	8,404	...	...	...	...	...	6
3,377	2,261	5,638	2,316	1,237	3,553	2,437	1,520	3,957	2,553	1,768	4,321	9,631	9,236	9,063	11,434	13,490	994	978	1,525	1,897	3,392	18
6,333	4,684	11,017	3,863	1,750	5,613	6,691	4,396	11,087	3,721	2,425	6,146	146,136	174,800	147,619	132,301	97,554	6,901	6,125	4,768	4,671	5,814	3
367	177	544	316	164	480	359	307	666	212	139	351	8,631	7,913	7,421	7,026	7,436	2,961	2,835	2,171	2,471	1,231	19
40	38	78	65	81	146	420	392	812	859	728	1,587	32,677	27,860	30,868	33,419	39,537	462	300	235	536	325	20
492	277	769	430	267	697	336	250	586	203	121	324	50,107	55,451	43,710	47,846	47,098	3,443	473	763	815	1,562	21
...	...	...	474	37	511	...	...	...	...	...	...	...	...	778	...	...	...	...	...	...	...	21
465	460	925	223	223	446	211	198	409	83	85	178	606	1,141	604	551	359	116	103	101	55	251	22
...	...	...	...	...	...	...	...	...	...	...	...	...	...	348	242	251	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	336	516	1,170	...	...	...	...	...	3
109,785	86,463	196,248	95,700	65,170	160,870	102,673	78,951	179,624	102,191	75,078	177,269	1,213,611	1,323,001	1,325,839	1,364,473	1,385,042	165,247	171,693	163,745	175,433	160,654	
132,306	89,013	211,319	114,184	67,966	182,150	123,094	80,330	203,424	125,622	79,265	204,887	1,784,730	1,935,018	1,966,673	2,097,438	2,166,234	179,936	168,730	174,957	200,100	188,470	

gauges to the main line in cases in which separate statistics have not been maintained.  
 to the Madras railway from the 1st January 1901.  
 from 1901.

Appendix 22.  
Rolling-stock.

APPEL

(Appendix 34 in 1

Rolling-stock under different heads on each

(Referred to in paragraph

N.B.—A reference to Appendix 1 will furnish the key to it

Items.	GAUGE.	5' 6"										3' 3 1/2"							
		1	2 (a)	3 (a) to (f)	4 (a)	5 (a) to (d)	6 (a)	6 (b) to (e)	7 (a) to (c)	8 (a) & (b)	9 (a) to (e)	10 (a) & (b)	11 (a) & (b)	12 (a) to (c)	13 (a) & (b)	14 (a) to (d)	15	16	17 (a) & (b)
	NUMBER.	B. G.	R. N.	B. R. & O. K.	E. B.	E. L.	G. I. P.	L. M.	M.	N. G. S.	N. W.	O. & R.	A. B.	B. & N. W.	B. D.	B. G. J. P.	B.	D.	D. I.
<b>Engines.</b>																			
1	Passenger engines	*	51	84	51	144	179	49	46	4	*	48	*	20	*	*	*	*	*
2	Goods and mixed engines	27	162	147	88	757	431	144	203	57	700	145	63	205	10	37	236	4	23
3	<b>TOTAL ENGINES</b>	27	213	231	139	901	610	193	249	61	7700	193	63	225	10	37	236	4	22
<b>Coaching vehicles.</b>																			
4	Saloons, Royal and State	...	...	...	...	4	...	...	2	14	11	...	2	3	...	8	1	...	...
5	Saloons, ordinary	4	1	13	18	2	...	2	...	...	...	...	...	13	4	2	17	...	...
6	Reserved carriages	...	15	9	2	39	...	5	13	5	63	16	...	...	...	...	29	...	...
7	Inspection carriages	1	...	...	...	...	...	1	3	...	...	1	...	...	...	...	...	...	...
8	Family carriages	...	...	...	...	...	...	8	3	2	...	2	...	...	...	5	...	...	...
9	First class carriages { 4-wheeled	4	26	4	11	97	71	22	38	10	82	40	1	9	3	1	27	...	...
10	Composite, first and second class. { Bogie	8	49	12	42	64	54	34	65	13	105	56	4	27	6	2	38	...	9
11	Composite, first, second and third class. { 4-wheeled	...	...	...	...	...	...	...	...	...	24	10	11	5	...	...	11	...	...
12	Other composite carriages { Bogie	...	5	1	19	10	...	...	8	...	11	...	12	...	...	...	28	...	...
13	Second class { Ordinary	4	29	26	...	87	128	22	79	10	98	33	...	33	2	10	31	...	...
14	Second class with postal accommodation	...	...	...	...	...	22	...	...	...	...	...	...	...	...	5	...	...	...
15	Intermediate class { 4-wheeled	4	26	15	24	93	...	...	4	...	120	39	...	24	...	10	...	...	...
16	Composite, intermediate and third class { Ambulance	...	...	12	3	...	...	...	...	...	...	...	61	...	...	...	...	...	...
17	Intermediate and postal carriages { Bogie	6	15	5	3	...	...	...	...	...	59	31	1130	54	1	...	...	...	...
18	Intermediate, third and postal carriages	2	3	...	...	...	...	...	...	...	18	...	...	...	2	...	...	...	...
19	Lower class	1	1	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...
20	Third class carriages { 4-wheeled	34	296	152	168	729	450	192	499	64	79	47	...	215	34	125	245	...	35
21	Third class and postal vans { without brakes	...	50	76	23	56	29	...	9	...	...	...	...	6	...	12	107	...	...
22	Third class carriages { 4-wheeled and with brakes	12	62	30	...	48	121	27	8	...	369	81	19	...	...	...	45	...	...
23	Brakevans	10	227	172	73	688	537	73	256	49	452	159	11	173	15	41	165	2	20
24	Brakevans with third class	...	19	...	13	...	...	21	10	...	101	...	...	...	...	...	32	...	...
25	Brakevans fitted with postal compartment	...	...	...	...	...	...	11	...	...	12	...	...	...	...	...	...	...	6
26	Postal vans	...	...	...	3	22	9	...	9	...	10	...	...	...	...	...	5	...	...
27	Composite, postal and other carriages	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...
28	Prison vans	...	...	...	...	...	6	2	...	...	...	...	...	...	...	...	...	...	...
29	Carriage trucks	...	4	4	6	39	50	5	27	2	42	...	...	5	...	6	...	...	...
30	Horse boxes	3	16	18	17	75	93	15	56	10	142	43	16	30	1	5	37	...	3
31	Luggage vans	4	31	26	23	41	90	25	30	6	61	43	12	1	...	1	31	...	4
32	Produce Vendors' vans	...	...	...	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...
33	Milk vans	6	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34	Fish vans	8	...	...	20	...	...	...	...	...	...	...	3	...	...	...	...	...	2
35	Store, ice and stationery vans	...	...	...	5	9	...	...	...	...	16	2	1	3	2	...	15	...	2
36	Miscellaneous	8	...	...	...	...	...	...	...	...	1	3	...	...	...	...	...	...	...
37	<b>TOTAL COACHING VEHICLES</b>	119	911	634	571	2,323	1,713	511	1,182	199	2,365	850	216	226	73	264	958	12	81
<b>Goods vehicles.</b>																			
38	Covered goods wagons, { Ordinary bogies	421	...	...	250	...	...	...	...	...	412	...	100	200	...	...	579	...	...
39	Covered goods wagons, { Military 4-wheeled	...	2,468	1,554	1,856	3,218	4,470	2,210	646	46	2,865	2,177	993	4,786	244	163	1,334	4	133
40	High-sided wagons, bogie	...	1,278	1,089	1,071	5,051	...	...	2,026	115	5,227	2,611	...	...	...	145	335	...	...
41	High-sided wagons, 4-wheeled	12	...	1,003	18	...	2,767	691	1,260	604	938	...	125	...	...	...	60	...	644
42	Medium-sided wagons, bogie	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
43	Medium-sided wagons, 4-wheeled	...	850	435	...	...	...	...	...	121	...	...	...	...	...	...	310	...	...
44	Low-sided wagons, { Ordinary bogie	...	...	142	...	...	...	...	...	...	102	...	...	28	...	20	95	...	...
45	Low-sided wagons, { Military 4-wheeled	42	190	33	...	4,918	230	25	150	...	588	189	300	544	68	565	...	4	70
46	Coal or coke wagons	...	1,259	***100	...	858	...	...	130	...	...	110	...	...	...	...	286	...	...
47	Cattle wagons	...	...	...	5	7	...	...	42	...	24	...	...	...	...	...	...	...	...
48	Accident vans	2	8	14	11	26	27	10	15	...	...	...	7	...	1	6	151	...	...
49	Platform wagons	...	38	...	...	43	...	...	3	...	...	...	24	2	...	...	13	...	...
50	Powder vans	2	6	6	1	18	...	4	9	...	47	8	...	...	...	...	...	...	...
51	Timber trucks	8	36	20	25	...	191	...	77255	10	49	...	55	279	12	22	43	...	50
52	Bolster trucks { Double	...	...	...	...	...	...	...	...	...	271	...	...	...	...	...	157	...	...
53	Ballast wagons { Single	...	14	...	58	...	...	50	...	...	...	...	16	...	...	...	150	...	...
54	Travelling oil tanks	...	76	478	37	248	...	91	...	60	...	...	50	...	...	74	103	...	...
55	Travelling water tanks	...	16	19	21	35	28	...	25	...	51	...	...	...	...	2	1	...	...
56	Travelling gas holder	...	8	8	2	3	10	4	10	3	72	8	...	...	...	1	18	...	...
57	Travelling cranes	2	11	4	5	29	47	10	15	2	52	17	17	19	3	...	27	...	1
58	Miscellaneous	...	28	10	10	40	...	...	16	7	16	7	7	...	...	58	128	...	...
59	<b>TOTAL GOODS VEHICLES</b>	497	6,442	5,018	3,046	16,463	7,888	3,106	4,841	980	11,518	5,461	1,711	5,868	328	1,048	4,388	8	899
<b>LOWER CLASS CARRIAGES FITTED WITH RETIRING</b>																			
	Intermediate class	4	85	16	18	82	...	...	...	...	120	25	...	...	3	12	...	...	...
	Third class	5	40	20	43	105	112	54	63	53	316	113	16	...	...	14	38	...	...
	<b>TOTAL</b>	9	75	42	56	187	112	54	63	53	436	138	10	...	8	26	38	...	...

\* Included with goods engines as no distinction is made in the line returns between Passenger and Goods and Mixed engines.  
 † Excludes 3 Passenger and 4 Goods engines condemned during the year.  
 ‡ Includes 150 salt wagons.



Appendix 23.  
Rolling-stock statistics.

APPEN

(Appendix 33 in

Number of, outlay on, and

(Referred to in paragraphs

N.B.—A reference to Appendix 1 will furnish the key

Progressive No.	GAUGE.		5'6"						
	NUMBER.		1	2 (a)	3 (a) to (f)	4 (a)	5 (a) to (d)	6 (a) to (e)	7 (a) to (c)
	Particulars.		B. C.	B. N.	B. B. & C. I.	E. B. S.	E. I.	G. I. P.	M.
<b>ENGINES.</b>									
1	Passenger engines		•	40	63	46	140	170	42
2	Number at close of 1902		•	11	21	5	4	58	4
3	Number added in 1903		•	51	84	51	144	228	48
4	Number at close of 1903		•	153	140	83	714	607	207
5	Number added in 1902		27†	9	7	5	43	—32	—4
6	Number at close of 1902		•	27†	127	88	757	575	203
7	Number added in 1903		•	27	213	139	901	803	249
8	Total number of locomotives on the 31st December		•	27†	127	88	757	575	203
9	Number per mile of line open of all classes		0·12	0·13	0·25	0·50	0·41	0·80	0·18
10	Average mileage run by each per annum		•	29,761	20,005	23,136	33,916	27,763	34,387
11	Passenger		•	22,967	14,051	20,551	20,682	19,106	20,300
12	Goods		•	21,442	21,594	16,421	22,283	22,797	22,715
13	All classes		•	32	55	69	93	76	34
14	Average mileage run by each per diem		•	59	67	45	61	59	62
15	Ton-mileage hauled per engine, in thousands of tons		3,701	7,081	5,338	5,247	7,838	6,286	5,661
16	Average under repairs or renewals at any one time		•	8	28	33	16	139	58
17	Total value, in thousands of rupees		8,64	•	73,99	•	1,65,78	2,66,77	93,18
18	Total value per mile of line open		8,915	•	8,835	•	7,541	9,948	6,636
<b>COACHING STOCK.</b>									
19	Number at close of 1902		117	888	618	548	2,316	2,233	1,181
20	Number added in 1903		3	23	16	23	7	—9	1
21	Number at close of 1903		119	911	634	571	2,323	2,224	1,182
22	1st class		0·09	0·04	0·05	0·18	0·08	0·06	0·07
23	2nd class		0·07	0·03	0·07	0·13	0·06	0·03	0·03
24	Intermediate class		0·05	0·02	0·04	0·25	0·06	•	•
25	3rd class		0·32	0·26	0·34	0·90	0·44	0·32	0·41
26	All other classes		0·39	0·19	0·26	0·59	0·40	0·37	0·28
27	Total of all classes		0·86	0·54	0·76	2·05	1·04	0·83	0·84
28	1st class		17,982	39,510	•	23,734	66,514	•	33,493
29	2nd class		32,702	45,279	•	31,444	77,461	•	28,804
30	Intermediate class		49,067	69,000	•	35,050	76,174	•	88,246
31	3rd class		45,929	42,241	•	33,349	61,070	•	35,200
32	All other classes		20,850	34,409	•	25,442	33,134	•	29,069
33	Total of all classes		32,154	40,496	46,288	30,546	52,390	45,097	32,616
34	Average mileage run by each per diem		83	111	127	88	144	124	89
35	Freight ton mileage per vehicle, in thousands of tons		25	30	47	26	46	32	23
36	Average under repairs or renewals at any one time		50	76	80	82	521	266	124
37	Total value, in thousands of rupees		•	•	37,08	•	•	1,04,15	49,86
38	Total value per mile of line open		•	•	4,452	•	•	3,882	3,124
<b>GOODS STOCK.</b>									
39	Covered wagons		420	3,772	2,587	2,018	8,313	6,819	2,396
40	Open		12	2,229	1,670	226	8,026	3,535	1,789
41	Timber trucks, including bolster trucks		57	53	90	68	•	241	185
42	All other classes		6	57	558	68	81	160	52
43	Total of all classes		495	6,111	4,905	2,380	16,420	10,555	4,422
44	Covered wagons		1	4	56	665	6	361	352
45	Open		•	330	125	—4	2	69	53
46	Timber trucks, including bolster trucks		1	—3	—70	—1	•	•	•
47	All other classes		•	•	2	6	35	9	14
48	Total of all classes		2	331	113	666	43	439	419
49	Covered wagons		421	3,776	2,643	2,683	8,319	6,880	2,748
50	Open		12	2,559	1,795	222	8,028	3,904	1,842
51	Timber trucks, including bolster trucks		58	50	20	67	•	241	185
52	All other classes		6	57	560	74	116	169	66
53	Total of all classes		497	6,442	5,018	3,048	16,483	10,994	4,841
54	Number of all classes per mile of line open		3·98	3·82	6·91	10·93	7·35	4·10	3·45
55	Average mileage run by each per annum		8,771	13,108	9,591	10,023	116,666	15,475	11,852
56	Average mileage run by each per diem		24	36	26	22	47	42	32
57	Average tare in tons		7·85	8·23	6·78	7·60	7·11	7·49	7·32
58	Covered wagons		7·65	7·81	6·19	6·60	6·45	6·56	6·37
59	Open		12·89	14·95	14·35	12·42	14·85	14·03	13·46
60	Average carrying capacity in tons		17·00	15·95	13·79	14·15	14·13	14·08	13·55
61	Average load of a goods vehicle, loaded and empty, per mile		8·65	6·18	6·44	5·02	7·38	5·67	4·81
62	Freight ton mileage per vehicle, in thousands of tons		82	56	59	50	1136	111	59
63	Average under repairs or renewals at any one time		143	171	253	172	680	687	227
64	Total value, in thousands of rupees		16,67	•	1,04,88	•	•	2,36,92	1,34,06
65	Total value per mile of line open		15,735	•	12,595	•	•	3,881	9,549
66	Grand total value of rolling-stock, in thousands of rupees		28,31	8,34,43	2,15,95	1,57,31	11,35,30	6,07,84	8,27,10
67	Grand total value of rolling-stock per mile of line open		22,650	19,877	25,932	56,448	51,651	22,656	19,309
<b>ROLLING-STOCK UNDER SUPPLY.</b>									
68	Engines		•	19	4	7	92	6	8
69	Coaching vehicles		•	62	12	24	196	28	85
70	Goods vehicles		•	937	87	310	1,048	404	77

\* Information not available. † Including passenger engines. ‡ Calculated on total goods stock excluding 115 vehicles intended for railway purposes only.

**DIX 23.**

Report for 1902.)

work done by Rolling-stock.

12 and 13 of Report.)

to the letters used to denote railway systems.

**Appendix 23.**  
Rolling-stock statistics.

3 3 1/2															Progressive No.
8 (a) & (b)	9 (a) to (e)	10 (a) & (b)	11 (a) & (b)	12 (a) to (c)	13 (a) & (b)	14 (a) to (d)	15	16	17 (a) & (b)	18 (b) to (d)	19 (c)	20 (a) to (c)	21 (d) & (e)	22 (g) to (l)	
N. G. S.	N. W.	O. & E.	A. B.	B. & N. W.	B. D.	B. G. J. P.	B.	D.	D. S.	E. B. S. M.	H. G. V.	J. B.	N. & S. C.	R. M.	
<b>ENGINES.</b>															
4	*	42	*	7	*	*	28	*	*	*	*	*	4	145	1
4	*	6	*	13	*	*	*	*	*	*	*	*	4	145	2
54	694†	139	53†	175	10†	37†	181	4†	22†	110†	54†	44†	5	293	3
8	6	6	10	80	10†	37†	27	4†	22†	15	1	4	5	—6	4
57	700†	145	63†	205	10†	37†	208	4†	22†	125†	55†	48†	5	287	5
61	700	193	63	225	10	37	236	4	22	125	55	48	9	432	6
0.17	0.19	0.17	0.09	0.17	0.07	0.08	0.18	0.83	0.28	0.18	0.14	0.01	0.11	0.23	7
22,079	*	53,138	*	23,568	*	*	29,668	*	*	29,169	*	*	8,348	19,651	8
18,941	*	17,931	*	21,150	*	*	21,295	*	*	18,683	*	*	26,700	13,727	9
19,147	23,981	26,686	16,995	21,364	22,749	15,338	22,288	3,640	13,759	22,961	*	21,090	18,541	15,715	10
60	*	146	*	65	*	*	81	*	*	80	*	*	23	54	11
52	*	49	*	58	*	*	58	*	*	51	*	*	73	88	12
52	66	73	47	59	62	42	61	10	38	63	*	58	51	43	13
6,175	7,156	7,050	2,385	3,962	*	2,459	3,687	*	*	†3,417	2,762	3,913	2,711	3,107	14
13	*	24	12	29	*	1	23	1	4	20	9	6	1	57	15
24.20	2,46.44	*	14.15	62.43	2.70	7.56	65.49	*	*	*	16.63	13.69	1.84	79.98	16
6,522	6,584	*	2,198	4,631	1,765	1,661	4,899	*	*	*	4,250	1,685	2,247	4,248	17
															18
<b>COACHING STOCK.</b>															
189	2,350	845	206	838	72	264	860	12	80	607	131	183	42	1,676	19
189	15	5	10	88	1	...	98	...	1	25	33	2	2	15	20
0.10	0.04	0.08	0.04	0.06	0.06	0.07	0.06	0.42	0.07	0.09	0.07	0.03	0.07	0.08	21
0.05	0.04	0.05	0.02	0.04	0.03	0.04	0.07	...	0.04	0.07	0.04	0.02	0.02	0.07	22
0.19	0.04	0.05	0.01	0.03	0.02	0.03	...	...	0.10	...	...	...	0.03	0.03	23
0.19	0.25	0.32	0.13	0.41	0.24	0.31	0.38	2.09	0.45	0.40	0.18	0.11	0.20	0.47	24
0.53	0.25	0.22	0.13	0.16	0.13	0.13	0.21	0.46	0.46	0.25	0.13	0.06	0.25	0.25	25
*	0.63	0.72	0.33	0.70	0.48	0.58	0.72	2.51	1.04	0.91	0.42	0.22	0.54	0.90	26
*	48,185	4,856	50,996	50,720	*	*	29,477	*	*	*	44,526	31,494	9,989	*	27
*	48,929	3,938	52,223	66,134	*	*	33,606	...	...	*	36,436	41,920	22,126	*	28
*	56,530	2,782	1,18,008	88,489	*	*	...	...	...	*	...	...	...	*	29
*	57,947	18,917	86,702	56,727	*	*	37,408	*	*	*	44,901	62,690	26,812	*	30
*	23,927	13,100	21,303	40,889	*	*	26,238	...	...	*	37,091	41,377	11,691	*	31
42,701	44,773	42,998	55,311	54,623	*	26,044	33,558	*	*	*	41,379	51,297	17,623	36,038	32
117	123	118	152	150	*	71	92	*	*	*	113	141	48	99	33
26	36	32	21	31	*	16	26	*	*	†21	26	31	24	25	34
23	333	132	28	61	1	26	107	1	12	83	10	9	...	79	35
*	1,45.65	*	16.86	*	*	8.90	50.90	*	*	*	8.48	*	*	*	36
*	3,889	*	2,619	*	*	1,954	3,507	*	*	*	2,166	*	*	*	37
															38
<b>GOODS STOCK.</b>															
182	8,004	4,083	859	5,508	231	293	2,786	4	133	2,435	400	538	75	4,254	39
745	2,917	...	468	...	67	662	906	4	714	361	386	295	56	2,675	40
28	321	610	76	329	12	22	350	...	50	84	20	...	8	79	41
78	235	45	77	81	4	23	259	...	2	69	10	...	...	92	42
1,008	11,477	4,788	1,480	5,868	317	1,005	4,301	8	899	2,949	816	633	139	7,100	43
-1	...	705	244	50	10	...	37	...	...	260	...	24	...	162	44
-10	...	...	-14	...	1	43	115	...	...	197	...	...	...	2	45
-18	-1	17	-5	-50	...	...	...	...	...	...	...	...	...	...	46
1	42	1	6	...	...	...	-65	...	...	39	...	36	...	6	47
-28	41	723	231	...	11	43	87	...	...	496	...	60	...	170	48
161	8,004	4,788	1,103	5,558	244	298	2,823	4	133	2,695	400	562	75	4,416	49
735	2,917	...	454	...	68	705	1,021	4	714	559	386	295	56	2,677	50
10	320	627	71	279	12	22	350	...	50	84	20	...	8	79	51
74	277	46	83	31	4	23	194	...	2	108	10	...	36	98	52
950	11,518	5,461	1,711	5,868	323	1,048	4,388	8	899	3,445	816	693	139	7,270	53
2.76	3.08	4.57	2.52	4.41	2.14	2.31	3.28	1.67	11.60	4.95	2.08	1.08	1.70	3.86	54
20,548	19,314	13,358	5,767	10,519	*	5,651	10,683	*	*	*	10,427	11,826	6,160	13,376	55
56	58	37	16	29	*	15	29	*	*	*	29	92	17	37	56
7.25	7.54	8.26	4.93	3.71	*	3.72	4.39	3.00	*	4.15	4.38	3.87	8.13	3.93	57
6.95	7.02	...	3.20	...	*	3.13	3.69	3.00	*	3.31	4.02	4.73	7.98	4.29	58
11.45	14.54	11.96	1.39	8.67	*	6.24	9.54	5.00	*	7.47	10.00	9.39	18.00	9.46	59
18.08	18.47	...	6.54	...	*	6.60	8.37	5.00	*	7.10	10.04	13.75	19.12	12.37	60
6.29	6.46	5.18	3.61	3.73	*	2.45	3.23	*	*	†3.15	3.81	3.39	3.20	4.25	61
108	114	47	21	36	*	15	41	*	*	†31	34	47	19	57	62
102	575	122	97	117	12	19	581	1	26	163	13	12	2	162	63
29.49	2,95.74	*	29.33	1,30.15	9.28	12.53	82.80	*	*	*	19.19	25.11	8.47	1,55.16	64
8,315	7,897	*	4,556	9,656	6,087	2,751	6,193	*	*	*	3,369	3,046	10,360	8,241	65
53.69	6,67.88	2,18.19	60.34	1,92.58	11.98	29.99	1,99.19	*	19.28	1,15.80	38.30	39.00	10.31	2,35.14	66
15,137	18,370	19,254	9,373	14,287	7,835	6,366	14,899	*	24,874	16,626	9,765	4,731	12,607	12,489	67
<b>ROLLING-STOCK UNDER SUPPLY.</b>															
...	59	5	14	...	...	...	14	...	...	8	...	...	7	...	68
...	106	10	52	...	...	...	24	...	...	46	...	...	13	...	69
29	348	80	107	400	...	...	607	...	...	61	...	...	40	841	70

§ Including Rs. 9,15,000, outlay of rolling-stock on lines under construction included in the open line list.  
 † Including 2' 6" gauge sections but excluding the Native State section of the Cooch Behar railway.

|| Including value of coaching stock.

A Appendix 23.  
V Rolling-stock statistics.

Number of, outlay on, and

(Appendix 33)

(Referred to in paragraphs

N.B.—A reference to Appendix 1 will furnish the key

Progressive No.	GAUGE.	3' 3 1/2" —concl'd.				2' 6"				
		CLASSIFICATION NUMBER.				24	25	4 (e)	4 (c)	3 (m) & (n)
		19 (a) & (b)	20 (a) to (e)	21 (a) to (h)	22	B. L.	B. B.	C. B.	E. B. S.	G. D. & R.
	Particulars.	H. K.	S. I.	S. M.	U. C.					

ENGINES.

1	Passenger engines.	Number at close of 1902	69	30	1	*	*	*	*	*
2		Number added in 1903	4	30	1	*	*	*	*	*
3		Number at close of 1903	73	60	2	*	*	*	*	*
4	Goods and mixed engines.	Number at close of 1902	31†	201	2	4†	3†	10†	11†	
5		Number added in 1903	10	7		1	3	10	13	
6		Number at close of 1903	41†	208	2	5†	3	20	24	
7	Total number of locomotives on the 31st December		41	238	3	5	3	10	13	
8	Number per mile of line open of all classes		0.14	0.17	0.04	0.23	0.16	0.09	0.29	0.10
9	Average mileage run by each per annum	Passenger	25,516	20,019	*	*	*	*	*	*
10		Goods	16,172	16,374	*	*	*	*	*	*
11		All classes	19,150	16,893	18,423	3,403	4,687	31,080	9,823	9,892
12	Average mileage run by each per diem.	Passenger	70	55	*	*	*	*	*	*
13		Goods	52	44	50	9	13	93	27	27
14		All classes	2,718	3,215	2,779	3,106	*	*	*	*
15	Ton-mileage hauled per engine, in thousands of tons		6	41	36	1	65	2	2	2
16	Average under repairs or renewals at any one time		4,959	4,833	95	1,27	65	*	*	1,44
17	Total value, in thousands of rupees		3,829	2,967	1,384	5,892	3,500	*	*	1,151
18	Total value per mile of line open		*	*	*	*	*	*	*	*

COACHING STOCK.

19	Number at close of 1902	158	990	1,053	26	7	23	16	33	54
20	Number added in 1903	15	24	26	26	7	23	16	33	54
21	Number at close of 1903	173	1,014	1,053	26	7	23	16	33	54
22	Number per mile of line open.	1st class	0.07	0.06	0.03	0.03	0.11	0.06	0.09	0.06
23		2nd class	0.03	0.05	0.03	0.03	0.11	0.03	0.06	0.06
24		Intermediate class	0.03	0.51	0.33	0.09	0.81	0.25	0.40	0.26
25		3rd class	0.27	0.16	0.20	0.23	0.32	0.04	0.30	0.11
26		All other classes	0.19	0.78	0.64	0.32	1.24	0.48	0.95	0.43
27	Total of all classes	0.59	32,550	*	*	*	*	*	*	*
28	Average mileage run by each per annum.	1st class	37,450	*	*	*	*	*	*	*
29		2nd class	43,742	*	*	*	*	*	*	*
30		Intermediate class	31,105	*	*	*	*	*	*	*
31		3rd class	34,058	39,674	28,696	28,887	*	*	*	*
32	Total of all classes	93	109	79	79	*	*	*	*	*
33	Average mileage run by each per diem.	19	36	17	22	*	*	*	*	*
34	Freight ton-mileage per vehicle, in thousand of tons	24	135	52	1	2	2	4	4	4
35	Average under repairs or renewals at any one time	*	38,41	*	1,19	*	*	*	*	1,29
36	Total value, in thousands of rupees	*	2,966	*	1,734	*	*	*	*	1,026
37	Total value per mile of line open	*	*	*	*	*	*	*	*	*
38		*	*	*	*	*	*	*	*	*

GOODS STOCK.

39	Number at close of 1902.	Covered wagons	898	1,944	3,277	25	7	56	55	88
40		Open	82	1,322	1,190	10	15	9	18	173
41		Timber trucks, including bolster trucks	76	51	237	39	1	2	2	2
42		All other classes	15	6	217	1	1	1	121	2
43	Total of all classes	1,071	3,323	4,861	35	62	65	196	215	
44	Number added in 1903.	Covered wagons	68	58	47	10	2	8	16	4
45		Open	7	58	30	8	2	8	16	2
46		Timber trucks, including bolster trucks	7	58	30	8	2	8	16	2
47		All other classes	60	58	11	8	2	8	16	2
48	Total of all classes	966	2,002	3,324	25	7	10	56	47	
49	Number at close of 1903.	Covered wagons	75	1,322	1,064	10	15	9	34	169
50		Open	76	51	267	39	1	2	2	2
51		Timber trucks, including bolster trucks	14	6	208	1	1	1	113	2
52	All other classes	1,131	3,381	4,561	35	62	20	65	196	
53	Total of all classes	3.29	2.61	2.95	0.50	2.36	1.08	1.93	2.87	1.67
54	Number of all classes per mile of line open	7,397	11,397	9,916	17,643	*	*	*	*	*
55	Average mileage run by each per annum	20	31	27	48	*	*	*	*	*
56	Average mileage run by each per diem	4.56	4.30	3.82	4.02	5.90	2.75	3.32	2.79	*
57	Average tare in tons.	2.74	3.52	3.27	3.22	5.35	2.50	2.15	1.69	*
58	Average carrying capacity in tons.	10.40	7.41	7.60	7.40	14.10	6.00	3.79	4.35	*
59	Average load of a goods vehicle, loaded and empty, per mile	7.37	6.93	6.95	6.29	9.66	6.00	5.00	4.74	*
60	Freight ton-mileage per vehicle, in thousands of tons	25	45	33	22	*	*	*	*	*
61	Average under repairs or renewals at any one time	68	188	124	58	4	3	10	10	*
62	Total value, in thousands of rupees	*	48,79	1,00,06	845	2,881	1,521	*	*	1,45
63	Total value per mile of line open	*	3,767	6,078	845	13,338	8,251	*	*	1,158
64		*	*	*	*	*	*	*	*	*
65		*	*	*	*	*	*	*	*	*
66	Grand total value of rolling-stock, in thousands of rupees	39,25	1,36,79	1,48,89	2,72	4,15	2,17	1,88	2,01	4,18
67	Grand total value of rolling-stock per mile of line open	13,490	10,562	9,045	3,963	19,230	11,751	5,598	5,790	3,835

ROLLING-STOCK UNDER SUPPLY.

68	Engines	10	9	8	4	8	8	8	8	8
69	Coaching vehicles	17	72	7	7	7	7	7	7	7
70	Goods vehicles	85	278	51	51	51	51	51	51	51

\* Information not available.

† Including passenger engines.

‡ Including value of coaching stock.



DIX 23—concl.

Appendix 23.  
Rolling-stock statistics.

work done by Rolling-stock.

in Report for 1902.)

12 and 13 of Report.)

to the letters used to denote railway systems.

2' 6"									2' 0"						Progressive No.
2 (b) & (d)	28	9 (f) & (g)	80	2 (c)	19 (c)	31	33	34	9 (h)	88	6 (f)	37	38	39	
J. G. E. & R. D.	K. S.	K. K. T. & N. D.	M. E. W.	P. L. L.	P. W. L.	R. K. L.	B. P.	T. B.	D. L.	D. H.	G. L.	H. A.	H. S.	J.	

ENGINES.

...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	2
4†	...	11†	3	3†	5†	2†	4†	3†	7	14†	11†	7†	4†	7†	3
12	12	17	-1	...	...	...	...	...	...	2	...	...	...	...	4
16†	12	28†	2	3†	5†	2†	4†	3†	7	16†	11†	7†	4†	7†	5
16	12	28	7	3	5	2	4	3	7	16	11	7	4	7	6
0.12	0.20	0.21	0.07	0.12	0.13	0.10	0.12	0.15	1.13	0.31	0.09	0.24	0.20	0.23	7
...	...	...	22,964	...	...	...	...	...	...	...	...	...	...	...	8
...	...	...	16,601	...	...	...	...	...	...	...	...	...	...	...	9
4,149	...	10,686	21,146	6,426	12,337	15,224	22,308	...	...	14,899	8,600	10,650	8,725	...	10
...	14	...	63	...	...	...	...	...	...	...	...	...	...	...	11
...	17	...	46	...	...	...	...	...	...	...	...	...	...	...	12
11	31	29	58	18	34	42	61	...	...	41	24	29	24	...	13
286	...	526	...	407	...	...	...	...	...	...	...	...	...	...	14
1	1	...	1	...	2	...	1	...	...	1	4	...	...	...	15
...	2.70	...	1.22	1.01	...	49	68	60	...	2.83	1.45	1.65	65	...	16
...	4,548	...	1,297	4,114	...	2,414	2,198	2,988	...	5,558	1,152	5,764	3,230	...	17
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	18

COACHING STOCK.

22	...	21	54	8	18	14	25	13	12	88	41	56	19	10	19
12	74	48	...	...	...	...	...	...	...	3	-1	...	1	9	20
34	74	64	54	8	18	14	25	13	12	91	40	58	20	18	21
0.01	0.27	0.02	0.07	0.06	0.05	...	0.07	0.20	...	0.44	0.06	...	...	0.07	22
0.01	0.27	0.02	0.06	...	0.05	...	0.04	...	...	0.62	...	...	...	...	23
...	...	...	...	...	...	...	0.07	...	...	...	...	...	...	...	24
0.21	0.40	0.29	0.35	0.14	0.38	0.44	0.52	0.30	...	0.66	0.16	1.39	0.71	0.33	25
0.08	0.30	0.16	0.09	0.12	0.08	0.25	0.11	0.15	...	0.06	0.10	0.56	0.30	0.20	26
0.26	1.24	0.49	0.57	0.32	0.46	0.69	0.80	0.65	...	1.78	0.32	1.95	1.01	0.63	27
9,829	401	29,836	...	4,047	...	...	...	...	...	2,395	...	...	...	...	28
9,829	398	15,010	...	...	...	...	...	...	...	1,711	...	...	...	...	29
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30
7,852	1,202	26,731	...	18,880	...	...	...	...	...	1,585	...	...	...	...	31
22,569	331	15,260	...	6,474	...	...	...	...	...	17,965	...	...	...	...	32
9,963	2,332	22,746	...	11,359	...	...	...	...	...	1,392	...	...	...	...	33
27	6	62	...	31	...	...	...	...	...	4	...	...	...	...	34
4	...	11	...	7	...	...	...	...	...	1	...	...	...	...	35
...	...	1	6	...	8	...	...	...	...	...	...	...	...	...	36
...	1.33	...	1.26	...	...	...	67	...	...	...	1.04	...	...	...	37
...	2,243	...	1,330	...	...	...	2,167	...	...	...	823	...	...	...	38

GOODS STOCK.

20	...	74	20	2	58	4	20	30	...	37	30	14	4	41	39
55	...	32	83	14	...	...	15	16	...	152	53	9	4	25	40
...	...	7	...	...	2	...	...	2	...	17	...	...	...	...	41
...	...	2	...	...	10	4	...	...	326	6	100	10	...	9	42
75	...	115	104	16	70	8	35	50	326	212	183	83	8	75	43
150	15	...	...	...	...	...	...	...	...	...	35	...	...	1	44
25	60	...	-36	...	...	...	...	...	...	...	...	-1	...	-1	45
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	46
...	...	52	...	...	1	...	...	...	...	...	1	...	...	...	47
175	75	52	-36	...	...	...	...	...	...	...	36	-1	...	...	48
170	15	74	20	2	58	...	20	30	...	37	65	14	4	42	49
80	60	32	47	14	...	...	15	18	...	152	53	8	4	24	50
...	...	7	...	...	2	...	...	2	...	17	...	...	...	...	51
...	...	54	...	...	11	4	...	...	326	6	101	10	...	9	52
250	75	167	68	16	71	4	35	50	326	212	219	32	8	75	53
1.83	1.26	1.27	0.74	0.65	1.32	0.20	1.12	2.50	0.53	4.16	1.73	1.11	0.41	2.48	54
1,006	1,173	7,005	...	2,402	...	...	...	...	...	870	...	...	...	...	55
3	3	19	...	7	...	...	...	...	...	2	...	...	...	...	56
7.45	3.25	4.49	3.25	6.98	3.13	...	2.75	...	...	...	...	2.75	2.75	...	57
4.59	2.75	3.20	3.80	4.06	...	...	2.15	...	...	...	...	2.50	2.50	...	58
10.96	5.00	8.64	4.50	9.04	4.76	...	5.00	...	...	0.37	...	5.00	5.00	...	59
9.64	5.00	7.98	7.10	7.38	...	...	5.00	...	...	0.37	...	5.00	5.00	...	60
5.00	...	1.64	...	2.26	...	...	...	...	...	...	...	...	...	...	61
5	...	12	...	5	...	...	...	...	...	9	...	...	...	...	62
...	...	3	7	...	3	...	...	...	...	...	...	...	...	...	63
...	97	...	1.37	47†	...	88†	53	1.00†	...	8,191	98	2,961	1,031	...	64
...	1,623	...	1,457	1,000	...	4,370	1,702	5,032	...	6,243	778	10,323	5,224	...	65
14.95	5.00	11.07	3.85	1.48	1.42	1.37	1.88	1.60	5	6.02	3.47	4.62	1.68	2.01	66
11,843	8,414	8,385	4,034	6,014	3,595	6,764	6,067	8,020	5	11,801	2,753	16,087	8,104	6,645	67

ROLLING-STOCK UNDER SUPPLY.

1	11	8	...	...	...	...	...	...	...	2	...	...	...	...	68
40	75	10	...	...	...	...	...	...	...	...	...	...	...	...	69
52	...	...	...	...	...	...	...	...	...	...	...	...	...	...	70

Included with the North Western State railway.



Appendix 24.  
Automatic brakes.

APPENDIX 24.

(Appendix 35 in Report for 1902.)

Rolling-stock fitted with automatic brakes at close of 1903.

(Referred to in paragraph 14 of Report).

NUMBER.		Gauge.	RAILWAY.	LOCOMOTIVES.			COACHING VEHICLES INCLUDING ALL BRAKE-VANS.				GOODS VEHICLES, EXCLUDING CRANES.			
Main head.	Sub-head.			Fitted.	Not fitted.	Proportion per cent. of fitted to total.	Braked.	Piped.	Not fitted.	Proportion per cent. of fitted to total.	Braked.	Piped.	Not fitted.	Proportion per cent. of fitted to total.
1	...	5' 6"	Bengal Central . . . . .	5	22	18.51	...	3	116	2.52	...	...	495	...
2	(a)		Bengal-Nagpur . . . . .	97	116	45.54	606	39	266	70.80	289	10	6,132	4.65
3	(a) to (f)		Bombay, Baroda and Central India . . . . .	161	50	76.30	492	8	134	73.86	1	45	4,968	0.92
4	(a)		Eastern Bengal State . . . . .	104	85	74.82	454	47	70	87.74	...	15	3,026	0.49
5	...		East Indian . . . . .	897	504	44.06	1,441	95	787	66.12	5	108	16,321	0.69
6	(a)		Great Indian Peninsula . . . . .	294	316	48.20	1,243	...	470	72.56	...	95	7,746	1.21
6	(b) to (c)		Indian Midland . . . . .	180	63	67.36	191	46	274	46.38	...	39	3,057	1.26
7	(a) to (c)		Madras . . . . .	121	128	48.59	799	43	340	71.24	...	11	4,815	0.23
8	(a) & (b)		Nizam's Guaranteed State . . . . .	...	61	...	56	4	129	31.75	...	...	978	...
9	(a) to (c)		North Western State . . . . .	595	115	83.57	1,945	88	332	85.96	786	105	10,575	7.77
10	(a) & (b)		Oudh and Rohilkhand State . . . . .	90	103	46.63	651	51	148	82.59	26	10	5,408	0.66
11	...		Assam-Bengal . . . . .	54	9	85.71	208	...	13	93.98	102	...	1,592	6.02
12	...		Bengal and North-Western . . . . .	50	175	22.22	94	6	626	10.80	...	...	5,849	...
13	...		Bengal Dooars . . . . .	...	10	...	...	...	73	...	...	...	325	...
14	...		Bhavnagar-Gondal-Junagad-Porbanbar . . . . .	...	37	...	...	...	261	...	...	...	1,046	...
15	...		Burma . . . . .	128	108	54.24	357	45	556	41.96	151	5	4,205	3.58
16	...		Deoghur . . . . .	...	4	...	...	...	12	...	...	...	8	...
17	...		Dibru-Sadiya . . . . .	...	23	...	...	...	81	...	...	...	898	...
4	(b) to (d)		Eastern Bengal State† . . . . .	82	43	65.60	410	47	175	72.31	...	2	3,430	0.05
8	(c)		Hyderabad Godavari Valley . . . . .	...	55	...	...	...	164	...	...	...	314	...
18	...		Jodhpur-Bikaner . . . . .	...	48	...	...	...	185	...	...	...	893	...
7	(d) & (e)		Nilgiri and Shoranur-Cochin . . . . .	4	5	44.44	12	1	31	29.55	16	...	123	11.51
3	(g) to (i)		Rajputana-Malwa . . . . .	...	432	...	...	...	1,691	...	...	...	17,241	...
19	(a) & (b)		Rohilkund and Kumaon . . . . .	10	31	24.19	...	...	173	...	...	...	1,123	...
20	...		South Indian . . . . .	29	189	13.30	167	2	845	16.67	...	...	3,375	...
21	...		Southern-Mahratta . . . . .	...	238	...	...	...	1,053	...	...	...	4,840	...
22	...		Udaipur-Chitor . . . . .	...	3	...	...	...	26	...	...	...	35	...
24	...		Barsi Light . . . . .	...	5	...	...	...	7	...	...	...	61	...
25	...		Bukhtiarpore-Bihar Light . . . . .	...	3	...	...	...	23	...	...	...	20	...
4	(e)		Cooch Behar† . . . . .	...	13	...	...	...	49	...	...	...	261	...
3	(m) & (n)		Gaekwar's Dabhoi and Rajpipla . . . . .	...	13	...	...	...	54	...	...	...	209	...
2	(b) & (d)		Jubbulpore-Gondia and Raipur-Dhamtari . . . . .	9	7	56.25	12	...	22	35.29	175	...	75	70.00
28	...		Kalka-Simla . . . . .	10	2	83.33	74	...	...	100.00	...	12	63	16.00
9	(f) & (g)		Khushalgarh-Kohat-Thal and Nowshera-Durgai . . . . .	...	23	...	...	...	64	...	...	...	167	...
30	...		Morvi . . . . .	...	7	...	...	...	54	...	...	...	68	...
2	(c)		Parlakimedi Light . . . . .	...	3	...	...	...	8	...	...	...	16	...
19	(c)		Powayan Ligh . . . . .	...	5	...	...	...	18	...	...	...	71	...
21	...		Ranaghat-Krishnagar Light . . . . .	...	2	...	...	...	14	...	...	...	4	...
32	...		Tarakeswar-Magra Light . . . . .	...	4	...	...	...	25	...	...	...	35	...
34	...	Tezapore-Balipara Light . . . . .	...	3	...	...	...	13	...	...	...	50	...	
9	(h)	Dandot Light . . . . .	...	7	...	...	...	512	...	...	...	326	...	
36	...	Darjeeling-Himalayan . . . . .	...	16	...	...	...	91	...	...	...	212	...	
6	(f)	Gwallior Light . . . . .	...	11	...	...	...	40	...	...	...	219	...	
37	...	Howrah-Amta Light . . . . .	...	7	...	...	...	56	...	...	...	32	...	
38	...	Howrah-Sheakhala Light . . . . .	...	4	...	...	...	20	...	...	...	8	...	
39	...	Jorhat State . . . . .	...	7	...	...	...	19	...	...	...	74	...	
Total				2,360	3,069	43.47	9,207	825	9,823	49.77	1,551	457	101,289	1.94

\* Includes 100, 5' 6" gauge, coal wagons borne on the Rajputana-Malwa railway rolling-stock list.

† Excludes the Teesta-Kurigram branch and the British section of the Cooch Behar-Santrabari extension, 2' 6" gauge lines, particulars of which are included with the Cooch Behar railway.

‡ One hundred, 5' 6" gauge, coal wagons belonging to this railway have been shown with the Bombay, Baroda and Central India railway rolling-stock.

## APPENDIX 25.

Appendix 25.  
Lighting of stock.

(Appendix 36 in Report for 1902.)

*Rolling-stock lighted by gas and electricity.*

(Referred to in paragraph 15 of Report.)

NUMBER.		Gauge.	RAILWAYS.	Number of coaching vehicles fitted.	Number of coaching vehicles not fitted.	Proportion per cent. of fitted to total.	REMARKS.
Main head.	Sub-head.						
1	...	2' 6".	Bengal Central . . . . .	...	119	...	
2	(a)		Bengal-Nagpur . . . . .	574	286	66.74	
3	(a) to (f)		Bombay, Baroda and Central India . . . . .	400	14	96.62	
4	(a)		Eastern Bengal State . . . . .	435	180	76.99	
5	...		East Indian . . . . .	1,208	457	72.55	
6	(a)		Great Indian Peninsula . . . . .	970	71	93.18	
6	(b) to (e)		Indian Midland . . . . .	286	103	72.59	
7	(a) to (c)		Madras . . . . .	896	259	77.58	
8	(a) & (b)		Nizam's Guaranteed State . . . . .	121	61	66.49	
9	(a) to (e)		North Western State . . . . .	1,670	434	79.37	
10	(a) & (b)	Ondh and Rohilkhand State . . . . .	620	230	72.94		
11	...	3' 6".	Assam-Bengal . . . . .	181	10	94.76	
12	...		Bengal and North-Western . . . . .	...	926	...	
13	...		Bengal-Doonars . . . . .	...	78	...	
14	...		Bhavnagar-Gondal-Junagad-Portbandar . . . . .	...	264	...	
15	...		Burma . . . . .	15	880	1.68	
16	...		Deoghur . . . . .	...	12	...	
17	...		Dibru-Sadiya . . . . .	...	81	...	
4	(b) to (d)		Eastern Bengal State* . . . . .	473	154	75.44	* Excludes the Teesta-Kurigram branch and the British section of the Cooch Behar-Santrabari extension, 2' 6" gauge lines, particulars of which are included with the Cooch Behar railway.
8	(c)		Hyderabad-Godaveri Valley . . . . .	114	50	71.26	
18	...		Jodhpur-Bikaner . . . . .	...	185	...	
7	(d) & (e)	Nilgiri and Shoranur-Cochin . . . . .	...	44	...		
3	(g) to (i)	Rajputana-Malwa . . . . .	140	1,520	8.43		
19	(a) & (b)	Rohilkhand and Kumaon . . . . .	...	173	...		
20	...	South Indian . . . . .	91	831	9.87		
21	...	Southern Mahratta . . . . .	984	54	94.53		
22	...	Udaipur-Chitor . . . . .	...	26	...		
24	...	Barsi Light . . . . .	...	7	...		
25	...	Bukhtiar-pore-Bihar Light . . . . .	...	23	...		
4	(e)	Cooch Behar* . . . . .	...	49	...		
3	(m) & (n)	Gaekwar's Dabhoi and Rajpipla . . . . .	...	54	...		
2	(b) & (d)	Jubbulpore-Gondia and Raipur-Dhamtari . . . . .	12	22	85.29		
28	...	Kalka-Simla . . . . .	74	...	100.00		
9	(f) & (g)	Khushalgarh-Kohat-Thal and Nowshera-Durgai . . . . .	...	64	...		
30	...	Morvi . . . . .	...	54	...		
2	(c)	Parlakimedi Light . . . . .	...	8	...		
19	(e)	Powayan Light . . . . .	...	18	...		
31	...	Ranaghat-Krishnagar Light . . . . .	...	14	...		
33	...	Tarakeshwar-Magra Light . . . . .	...	25	...		
34	...	Tez-pore-Balipara Light . . . . .	...	13	...		
9	(h)	Dandot Light . . . . .	...	12†	...	† These vehicles* belonged to the old Ferozepore Steam Tramway.	
36	...	Darjeeling-Himalayan . . . . .	...	91	...		
6	(f)	Gwalior Light . . . . .	...	40	...		
37	...	Howrah-Amta Light . . . . .	...	56	...		
38	...	Howrah-Sheakhala Light . . . . .	...	20	...		
39	...	Jorhat State . . . . .	...	19	...		

Appendix 26.  
Interlocking and signalling.

APPENDIX 26.  
(Appendix 37 in Report for 1902.)

Railways on which points and signals were interlocked and on which block instruments were used for train signalling at close of 1903.

(Referred to in paragraph 16 of Report.)

NUMBER.		Gauge.	RAILWAY.	Total number of stations on railway.	STATIONS AT WHICH POINTS AND SIGNALS WERE INTERLOCKED.		STATIONS AT WHICH BLOCK INSTRUMENTS WERE USED FOR TRAIN SIGNALLING.	
Main head.	Sub-head.				No.	Name of system of interlocking.	No.	Name of block instrument.
1	...	5' 6"	Bengal Central . . . . .	27	...	...	...	...
2	(a)		Bengal-Nagpur . . . . .	226	87	86 List and Morse's 1 Experimental	18	7 Webb and Thomson's. 11 Experimental.
3	(a) to (f)		Bombay, Baroda and Central India . . . . .	127	25	16 Mackenzie and Holland's. 9 Experimental	76	68 Preece's single wire semaphore.* 8 Sykes'.
4	(a)		Eastern Bengal State . . . . .	82	15	9 Mackenzie and Holland's. 6 Experimental	...	...
5	...		East Indian . . . . .	360	124	87 English system 36 Dutton's 1 Experimental	116	75 Pryce and Ferreira's. 37 Tyer's Tablet. 4 Experimental.
6	(a)		Great Indian Peninsula . . . . .	234	31	24 Saxby and Farmer's 7 Experimental	234	234† Preece's single wire semaphore.* 15† Experimental.
6	(b) to (e)		Indian Midland . . . . .	140	19	11 Wrench's 2 Experimental	14	Preece's.*
7	(a) to (c)		Madras . . . . .	287	54	37 List and Morse's 17 Experimental	146	104 Winter's Block with starting semaphores.* 20 Winter's Block without starting semaphores.* 22 Theobald's Train Key.
8	(a) & (b)		Nizam's Guaranteed State . . . . .	45	1	Dutton's	...	9 Tyre's Tablet.
9	(a) to (e)		North Western State . . . . .	516	256	210 List and Morse's 23 Tappet 20 Key locking 3 Experimental	11	2 Experimental.
10	(a) & (b)		Oudh and Rohilkhand State . . . . .	169	84	78 List and Morse's 6 Experimental	...	...
11	...	3' 3 1/4"	Assam-Bengal . . . . .	98	...	...	...	...
12	...		Bengal and North-Western . . . . .	251	...	...	...	...
13	...		Bengal-Doonars . . . . .	28	...	...	...	...
14	...		Bhavnagar-Gondal-Junagad-Porbandar . . . . .	64	1	Experimental	...	...
15	...		Burma . . . . .	213	2	1 Dutton's 1 Saxby and Farmer's	4	Tyer's Tablet.
16	...		Deoghur . . . . .	1	...	...	...	...
17	...		Dibru-Sadiya . . . . .	17	...	...	...	...
4	(b) to (d)		Eastern Bengal State . . . . .	120	19	18 List and Morse's 1 Tappet	20	Tyer's Tablet.
8	(c)		Hyderabad-Godavari Valley . . . . .	46	41	41 List and Morse's	...	...
18	...		Jodhpur-Bikaner . . . . .	84	...	...	...	...
7	(d) & (e)		Nilgiri and Shoranur-Cochin . . . . .	21	...	...	12	6 Winter's Block with starting semaphores.* 6 Theobald's Train Key. 17 Tyer's Tablet.
3	(g) to (l)		Rajputana-Malwa . . . . .	272	24	2 Dutton's 4 Mackenzie and Holland's. 18 Country made	20	3 Sykes'.
19	(a) & (b)		Rohilkund and Kumaon . . . . .	47	...	6 Dutton's	...	...
20	...		South Indian . . . . .	220	7	1 Saxby and Farmer's	21	Winter's Ticket issuing.
21	...	Southern Mahratta . . . . .	230	...	...	105	101 Winter's.* 4 Theobald's Train Key.	
22	...	Udaipur-Chitor . . . . .	7	...	...	...	...	
24	...	2' 6"	Barsi Light . . . . .	4	...	...	...	
25	...		Bukhtiar-pore-Bihar Light . . . . .	7	...	...	...	
4	(c)		Cooch-Bihar . . . . .	7	...	...	...	
3	(m) & (n)		Gaekwar's Dabhoi and Rajpura . . . . .	28	1	Country made	...	...
2	(b) & (d)		Jubbulpore-Gondia and Raipur Dhamtari . . . . .	16	...	...	...	
9	(f) & (g)		Khushalgarh-Kohat-Thal and Nowshera-Durgai . . . . .	19	...	...	...	
23	...		Kalka-Simla . . . . .	19	...	...	...	
30	...		Morvi . . . . .	14	...	...	...	
2	(c)		Parlakimedi Light . . . . .	6	...	...	...	
19	(c)	Powayan Light . . . . .	9	...	...	...		
31	...	Ranaghat-Krishnagar Light . . . . .	8	...	...	...		
33	...	Tarakshwar-Magra Light . . . . .	13	...	...	...		
34	...	Tezpore-Balipara Light . . . . .	8	...	...	...		
36	...	2' 0"	Darjeeling-Himalayan . . . . .	11	...	...	...	
6	(f)		Gwalior Light . . . . .	18	...	...	...	
37	...		Howrah-Amta Light . . . . .	14	...	...	...	
38	...		Howrah-Sheakhala Light . . . . .	11	...	...	...	
39	...		Jorhat . . . . .	8	...	...	...	
Total				4,115	785	...	797	...

\* These systems do not give out a token or tablet.

† At 15 stations two kinds of instruments are in use.

APPENDIX 27.

(Appendix 28 in Report for 1902.)

Appendix 27.  
Fuel consumption.

Coal and wood fuel consumed by each railway (by systems) and price paid per ton during the calendar years 1899 to 1903.

(Referred to in paragraphs 21 and 23 of Report.)

N.B.—A reference to Appendix 1 will furnish the key to the code letters used to denote railway systems.

Number.	Railway.	Calendar year.	SOURCES OF SUPPLY.			DESCRIPTION OF FUEL WITH ACTUAL QUANTITY CONSUMED AND COST PER TON.									CONSUMPTION IN lb.*			
			Name.†	AVERAGE DISTANCE CARRIED IN MILES.‡		FOREIGN COAL.			INDIAN COAL.			WOOD.			Per train mile.	Per Engine mile.	Per 1,000 freight ton miles.	Per 1,000 gross ton miles.
				Coal.	Wood.	Quantity in tons.	Cost per ton.		Quantity in tons.	Cost per ton.		Quantity in tons.	Cost per ton.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
							Rs.	Rs.		Rs.	Rs.		Rs.	Rs.				
1	B. C.	{ 1899 1900 1901 1902 1903 }	Bengal . . .	{ 162 162 162 162 162 }	...	...	...	...	9,264	6·24	3·25	...	...	...	50·59	45·79	1,662·07	216·39
2	B. N.	{ 1899 1900 1901 1902 1903 }	Bengal and Umaria . . .	{ 269 242 331 321 283 }	...	...	...	...	60,955	6·82	3·39	...	...	...	58·64	52·91	567·92	151·82
2	P. L. L.	{ 1899 1900 1901 1902 1903 }	Bengal . . .	{ ... 603 567 }	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	E. D.	{ 1899 1900 1901 1902 1903 }	Bengal . . .	{ ... 482 481 480 463 }	...	...	...	...	369	8·12	2·44	...	...	...	...	...	...	...
2	J. G. E.	{ 1899 1900 1901 1902 1903 }	Bengal . . .	{ ... 608 }	...	...	...	...	191	7·68	2·12	...	...	...	64·35	60·52	1,135·88	393·80
3	B., B. & C. I.	{ 1899 1900 1901 1902 1903 }	England, Bengal and Singareni . . .	{ 164 164 138 128 121 }	...	26,212 16,136 5 7,477 10,384	19·68 22·78 27·00 20·00 19·38	...	53,042 74,587 77,916 65,559 63,172	15·16 15·84 16·13 15·98 14·56	...	1,885 2,175 2,049 2,063 2,226	4·05 3·88 3·80 3·27 3·00	...	56·92 58·95 60·26 58·11 57·58	48·97 50·17 51·16 48·99 48·16	493·76 510·34 524·84 543·66 514·46	148·24 146·31 155·57 154·30 148·09
3	G. D. & E.	{ 1899 1900 1901 1902 1903 }	England and Bengal . . .	{ ... 184 145 }	...	...	...	...	950 1,045 1,245 1,039 1,417	...	...	...	91 59 54 24 70	...	24·24 24·25 25·65 24·18 25·50	23·78 24·14 25·48 24·02 25·17	...	...
3	E. B. S.	{ 1899 1900 1901 1902 1903 }	Bengal . . .	{ ... 177 186 167 156 }	...	...	...	...	56,305 62,485 65,477 67,891 69,266	5·02 5·69 5·93 6·10 5·65	...	...	...	...	62·83 63·39 71·66 69·86 72·02	44·37 48·47 51·09 49·57 50·20	844·02 881·82 1,008·11 889·42 919·95	194·99 201·99 226·09 209·53 212·73
3	E. B. S.	{ 1899 1900 1901 1902 1903 }	Bengal and Assam . . .	{ ... 287 303 291 280 }	...	...	...	...	31,544 35,904 40,271 42,838 47,247	5·97 8·20 8·71 8·82 6·52	...	...	...	...	35·62 38·32 39·75 42·62 44·07	29·53 30·77 32·18 34·31 35·65	800·23 763·05 920·98 898·88 814·88	203·07 215·42 229·57 235·43 229·44
3	C. B.	{ 1899 1900 1901 1902 1903 }	Bengal and Assam . . .	{ ... 407 85 }	...	...	...	...	785 980	10·69 9·86	4·18 3·04	...	...	...	29·95 23·76	19·13 21·50	...	...
3	E. C.	{ 1899 1900 1901 }	Bengal and Singareni . . .	{ 220 249 }	Transferred partly to the Bengal-Nagpur and partly to the Madras railways.	...	...	...	37,247 53,479	7·32 7·47	...	...	...	...	55·99 60·38	50·47 56·00	812·89 689·85	180·45 178·13
3	E. I.	{ 1899 1900 1901 1902 1903 }	Bengal and Umaria . . .	{ 243 255 245 280 256 }	...	...	...	...	412,376 461,061 474,034 481,247 476,581	4·15 4·19 4·00 4·18 4·19	2·08 2·03 1·91 1·96 2·00	...	...	...	62·37 63·80 63·05 63·92 65·75	50·82 51·61 50·47 50·76 51·97	475·67 491·00 470·61 503·10 457·12	167·41 173·43 164·71 161·43 151·16

\* Calculated on the actual quantity of coal, and wood reduced in terms of coal at the rate of 1 ton of coal to 2½ tons of wood.  
 † The name of the sources of supply is for coal only. Wood was supplied from various sources.  
 ‡ The distance is reckoned either from the sources of supply or from the places of delivery to several storages.

Appendix 27.  
Fuel consumption.

APPENDIX 27—contd.

(Appendix 28 in Report for 1902.)

Coal and wood fuel consumed by each railway (by systems) and price paid per ton during the calendar years 1899 to 1903—contd.

(Referred to in paragraphs 21 and 23 of Report.)

N.B.—A reference to Appendix 1 will furnish the key to the code letters used to denote railway systems.

Number.	Railway.	Calendar year.	SOURCES OF SUPPLY.			DESCRIPTION OF FUEL WITH ACTUAL QUANTITY CONSUMED AND COST PER TON.										CONSUMPTION IN lb.*			
			Name.†	AVERAGE DISTANCE CARRIED IN MILES.‡		Quantity in tons.	FOREIGN COAL.		INDIAN COAL.		WOOD.		Per train mile.	Per Engine mile.	Per 1,000 freight ton miles.	Per 1,000 gross ton miles.			
				Coal	Wood.		Including freight.	Excluding freight.	Quantity in tons.	Including freight.	Excluding freight.	Quantity in tons.					Including freight.	Excluding freight.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
							Rs.	Rs.		Rs.	Rs.		Rs.	Rs.					
(a) to (e)	G. I. P.	1899	England, Bengal, Singareni, Umaria, Nerbuda and Warora.	350	...	197	...	19 50	337,716	8 31	5 48	3,511	...	2 86	64 77	56 73	792 26	266 4	
		1900		371	...	...	...	...	376,245	7 86	5 24	3,883	...	3 05	68 79	59 91	819 32	209 9	
		1901		318	...	...	...	...	381,380	8 57	6 18	4,349	...	2 62	66 60	57 86	764 21	198 2	
		1902		294	...	303	...	12 87	425,936	8 38	5 98	4,515	...	3 81	66 79	58 11	719 69	193 6	
		1903		327	...	...	...	...	456,794	8 47	6 07	4,439	...	3 91	68 48	59 65	798 03	206 8	
(a) to (e)	G. L.	1899	Bengal and Mohpani.	...	...	...	...	...	962	...	...	47	...	...	29 06	...	...	...	
		1900		...	...	...	...	...	886	...	...	16	...	...	37 71	35 99	...	...	
		1901		...	...	...	...	...	1,400	...	...	...	...	...	35 03	35 03	...	...	
		1902		...	...	...	...	...	1,617	16 00	2 75	...	...	...	38 30	36 00	...	...	
		1903		750	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(a) to (e)	M.	1899	England, Bengal and Singareni.	†	17	37	26 00	8 18	43,555	12 64	4 75	86,212	5 14	4 79	61 87	53 70	1,003 94	225 2	
		1900		294	17	229	32 30	12 50	44,900	12 67	4 75	87,615	4 95	4 60	63 90	52 61	997 90	226 5	
		1901		494	15	125	32 30	12 50	94,484	18 52	4 04	94,503	5 74	5 42	63 66	54 19	882 19	212 7	
		1902		313	14	...	...	...	97,546	10 32	5 25	108,529	4 97	4 68	68 64	57 65	974 72	227 0	
		1903		393	27	...	...	...	112,647	10 29	5 12	96,577	4 97	4 42	73 02	60 89	1,069 81	240 4	
(a) to (e)	S. C. & N.	1899	England, Bengal and Singareni.	328	...	1,004	31 12	8 18	11	17 77	4 75	157	3 94	...	94 41	91 15	...	...	
		1900		328	...	1,229	38 03	12 50	8	16 79	4 75	300	3 87	...	79 14	75 52	...	...	
		1901		328	...	1,510	38 03	12 50	5	18 45	4 04	385	4 00	...	88 52	85 85	1,410 33	1,802 91	
		1902		241	16	1,875	31 67	27 57	...	...	...	3,315	4 03	4 09	72 38	66 69	4,399 75	654 4	
		1903		683	18	1,662	29 00	29 17	11	18 60	5 12	5,889	4 61	4 25	61 42	54 08	2,409 43	369 8	
(a) to (e)	K. G. S.	1899	Singareni.	105	...	...	...	...	27,675	...	4 60	...	...	...	65 02	56 67	493 59	163 91	
		1900		101	...	...	...	...	36,625	...	4 36	...	...	...	69 96	60 89	541 65	172 8	
		1901		102	...	...	...	...	29,307	...	4 60	...	...	...	63 54	54 15	587 97	174 91	
		1902		103	...	...	...	...	30,215	...	4 66	...	...	...	67 00	56 75	567 97	173 81	
		1903		132	...	...	...	...	26,967	6 27	4 50	250	5 88	3 25	61 02	51 91	547 72	160 91	
(a) to (e)	H. G. V.	1899	Singareni.	493	...	...	...	...	3,969	10 77	4 50	...	...	...	44 00	40 39	1,197 84	264 4	
		1900		321	...	...	...	...	13,851	7 19	4 50	...	...	...	41 08	37 78	1,189 82	231 2	
		1901		341	...	...	...	...	14,442	6 98	4 88	...	...	...	40 12	36 11	1,026 21	219 6	
		1902		347	...	...	...	...	14,610	10 00	6 62	265	4 60	...	39 66	35 55	1,031 64	217 0	
		1903		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(a) to (e)	N. W.†	1899	England, Bengal, Dandot, Bhaganwala and Khost.	1838	...	29,768	...	19 20	144,878	11 5 43	7 56	145,008	5 27	...	50 54	44 61	553 11	147 51	
		1900		1838	...	24,635	...	26 80	158,453	11 7 25	7 44	123,828	5 36	...	58 25	46 59	680 47	171 21	
		1901		1838	...	11,074	...	22 27	194,134	11 6 81	5 38	180,521	5 21	...	51 24	44 95	520 93	149 71	
		1902		1838	...	7,206	...	20 61	248,279	††	††	122,823	...	...	52 84	46 36	593 84	160 46	
		1903		1838	...	3,736	...	19 00	258,111	§§	§§	216,097	5 31	...	52 72	46 47	557 78	155 74	
(a) to (e)	K. K. T. & N. D. **	1899	Bengal and Dandot.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		1900		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		1901		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		1902		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		1903		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(a) to (e)	O. & E.	1899	Bengal.	537	...	...	...	...	56,878	10 33	3 37	...	...	...	41 56	35 57	573 19	135 83	
		1900		523	...	...	...	...	78,503	10 18	3 18	...	...	...	49 88	42 05	811 20	177 86	
		1901		528	...	...	...	...	92,868	10 39	2 97	...	...	...	51 04	43 60	784 95	172 47	
		1902		674	...	...	...	...	98,775	9 38	2 53	...	...	...	51 68	44 36	819 01	172 31	
		1903		595	...	...	...	...	108,040	7 76	2 15	...	...	...	54 81	46 99	849 59	177 85	
(a) to (e)	A. B.	1899	Bengal and Assam.	80	...	...	...	...	9,994	9 53	...	...	...	...	36 63	31 18	508 14	144 14	
		1900		86	...	...	...	...	9,780	9 47	...	...	...	...	36 57	31 43	636 60	163 97	
		1901		106	...	...	...	...	10,781	10 22	...	1,627	1 72	...	39 09	32 95	734 11	184 88	
		1902		105	...	...	...	...	13,661	9 25	...	2,715	1 57	...	44 52	37 21	1,011 99	223 73	
		1903		120	...	...	...	...	15,682	7 92	...	1,918	1 45	...	48 06	36 78	903 35	245 24	
(a) to (e)	B. & N. W.	1899	Bengal.	294	90	...	...	...	40,470	6 17	3 17	10,670	3 81	3 81	35 47	30 18	606 90	186 89	
		1900		301	83	...	...	...	48,644	6 30	3 34	10,543	3 81	3 81	38 61	32 17	770 20	208 64	
		1901		226	27	...	...	...	58,173	5 99	3 19	3,823	3 95	3 95	39 33	33 67	713 59	203 14	
		1902		252	25	...	...	...	71,240	6 11	3 04	2,766	4 22	4 22	38 09	33 16	821 81	210 21	
		1903		250	25	...	...	...	87,652	5 61	2 73	4,733	4 28	4 28	49 95	41 73	825 63	225 02	

\* Calculated on the actual quantity of coal, and wood reduced in terms of coal at the rate of 1 ton of coal to 2½ tons of wood.  
 † The name of the sources of supply is for coal only. Wood was supplied from various sources.  
 ‡ The distance is reckoned either from the sources of supply or from the places of delivery to several storages.  
 § Including sea freight from England.  
 || Of Bengal coal only.  
 ¶ Includes Nowshera-Durgai during the 1st-half of 1901.  
 \*\* The figures against 1901 are for second-half only, those for the 1st-half are included with the North Western State railway.  
 †† Bengal coal via Kiamari Rs. 13 62 and via Ghaziabad Rs. 15 44.  
 ‡‡ Bengal coal from Rs. 2 37 to Rs. 3 00 and Khost and Dandot coal between Rs. 7 and Rs. 13 and Khost patent fuel at Rs. 20.  
 §§ Bengal coal via Kiamari Rs. 12 00 and via Ghaziabad Rs. 14 88.  
 ||| Bengal coal from Rs. 2 06 to Rs. 3 50 and Khost and Dandot coal between Rs. 7 and Rs. 13.

APPENDIX 27—contd.

Appendix 27  
Fuel consumption

(Appendix 28 in Report for 1902.)

Coal and wood fuel consumed by each railway (by systems) and price paid per ton during the calendar years 1899 to 1903—contd.

(Referred to in paragraphs 21 and 23 of Report.)

N.B.—A reference to Appendix I will furnish the key to the code letters used to denote railway systems.

Numbers.	Railway.	Calendar year.	SOURCES OF SUPPLY.			DESCRIPTION OF FUEL WITH ACTUAL QUANTITY CONSUMED AND COST PER TON.										CONSUMPTION IN lb.*			
			Name.†	AVERAGE DISTANCE CARRIED IN MILES.‡		FOREIGN COAL.			INDIAN COAL.			WOOD.				Per train mile.	Per engine mile.	Per 1,000 freight ton miles.	Per 1,000 gross ton miles.
				Coal.	Wood.	Quantity in tons.	Cost per ton.		Quantity in tons.	Cost per ton.		Quantity in tons.	Cost per ton.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
							Rs.	Rs.		Rs.	Rs.		Rs.	Rs.					
13	B. D.	1899 1900 1901 1902 1903	Bengal	\$		...	...	...	1,080	10.27	...	...	...	...	61.75	47.52	...	...	
14	B. G. J. P.	1899 1900 1901 1902 1903	England, Bengal and Palana.		68 59 61 52 54	4,006 1,725 254 1,494 813	25.00 ...	...	3,343 7,647 6,940 4,966 6,027	18.00 17.87 18.69 18.00 15.44	...	84 98 79 74 80	4.25 4.50 10.87 8.88 7.73	...	26.91 30.78 31.19 29.77 30.26	24.98 28.24 28.57 27.45 27.32	761.06 843.17 737.67 913.80 800.61	160.39 184.84 183.69 174.64 170.38	
15	B.	1899 1900 1901 1902 1903	England, Bengal and Burma.		105 128 131 120 109	694 ...	...	46,028 58,020 70,376 62,124 72,740	15.39 15.62 14.88 12.57 10.63	...	30,266 44,826 43,303 55,474 66,406	3.64 3.70 3.53 3.95 3.81	...	45.12 49.80 54.67 52.32 51.98	37.21 41.12 44.74 42.54 42.70	929.54 859.88 1,013.12 972.47 1,687.55	231.64 273.70 289.08 255.40 258.16		
16	D.	1899 1900 1901 1902 1903	Bengal		118 118 118 ...	...	...	295 323 383 400 393	5.00 5.00 5.31 5.62 4.06	...	...	...	...	...	45.40 48.00 56.41 61.37 56.55	45.40 48.00 56.41 61.37 56.55	...	467.64 734.00 ...	
17	D. S.	1899 1900 1901 1902 1903	Assam	\$	...	...	...	4,653 4,453 4,884 4,616 3,983	8.50 8.50 8.50 8.50 8.50	...	20 41 21 26 12	2.05 2.05 2.36 2.08 2.56	...	44.20 44.19 45.54 51.64 43.67	31.36 28.34 30.08 26.75 29.46	...	...		
18	J. B.	1899 1900 1901 1902 1903	Bengal and Palana.		995 913 665 467 358	...	...	8,951 10,393 13,551 18,231 22,420	20.97 18.87 ...	3.76 4.48 4.47 5.55 7.36	...	...	...	...	34.92 37.07 42.38 47.63 52.50	33.06 35.34 40.20 45.42 49.61	569.70 644.16 928.57 1,060.85 1,048.94	175.30 203.21 240.94 261.76 267.31	
8 (g) to (i)	R. M.	1899 1900 1901 1902 1903	England, Bengal and Singareni.		733 719 720 723 725	20,548 21,703 260 ...	24.74 26.43 20.30 ...	82,031 112,653 118,778 113,360 95,725	18.82 18.20 18.24 16.57 15.79	5.11 9.41 6.84 5.74 6.03	...	2,054 2,121 2,900 2,183 2,615	5.00 5.00 5.00 5.00 5.00	...	35.41 37.76 39.17 39.84 37.60	31.15 33.60 34.49 34.62 31.93	419.71 411.32 415.75 447.79 474.43	151.74 155.49 160.57 164.80 161.48	
19 (a) & (b)	R. & K.	1899 1900 1901 1902 1903	Bengal		669 669 677 677 677	...	...	272 293 1,106 2,068 1,792	13.52 16.82 14.65 13.52 11.46	3.33 6.13 3.54 2.56 2.37	...	14,610 15,629 16,302 17,503 17,105	3.21 3.03 3.24 ...	...	33.62 25.29 28.26 32.00 30.91	19.46 20.61 22.93 25.98 25.25	482.77 535.15 614.42 631.00 613.87	139.91 153.62 172.87 188.86 173.58	
19 (c)	P. W. L.	1899 1900 1901 1902 1903	.....		...	...	...	...	...	...	...	1,440 1,326	...	3.05 3.26	21.03 19.03	19.91 17.81	...	...	
20	S. I.	1899 1900 1901 1902 1903	Bengal and Singareni.		51 57 60 63 82	...	...	49,566 51,082 55,120 53,273 60,036	12.95 18.13 13.25 18.11 12.18	...	...	12,402 1,858 1,348 10,732 10,516	4.75 4.54 4.50 5.01 4.91	...	35.96 35.68 34.59 36.44 37.71	31.21 32.04 31.66 33.19 34.23	1,048.01 1,003.16 823.48 822.47 774.08	227.22 218.69 201.19 209.97 205.48	
21 (a) to (g)	S. M.	1899 1900 1901 1902 1903	England, Singareni and Bengal.		469 468 481 402 351	68 68 92 96 74	...	86,842 45,107 85,582 88,506 38,492	18.13 13.46 13.38 13.67 14.25	5.00 5.00 5.00 5.25 8.40	...	34,978 43,523 49,588 62,422 65,629	5.54 5.23 4.08 5.64 5.44	4.08 4.08 4.08 4.08 4.19	39.43 40.09 38.41 39.11 40.71	35.04 35.77 37.01 34.71 36.27	642.38 754.50 818.19 804.00 803.88	205.61 218.32 217.36 215.09 219.75	

\* Calculated on the actual quantity of coal, and wood reduced in terms of coal at the rate of one ton of coal to 2½ tons of wood.  
 † The name of the sources of supply is for coal only. Wood was supplied from various sources.  
 ‡ The distance is reckoned either from the sources of supply or from the places of delivery to several storages.  
 § Prices are given at the place of delivery which is the place of storage.

Appendix 27.  
Fuel consumption.

APPENDIX 27—concl'd.

(Appendix 26 in Report for 1902.)

Coal and wood fuel consumed by each railway (by systems) and price paid per ton during the calendar years 1899 to 1903—concl'd.

(Referred to in paragraphs 21 and 23 of Report.)

N.B.—A reference to Appendix 1 will furnish the key to the code letters used to denote railway systems.

Number.	Railway.	Calendar year.	SOURCES OF SUPPLY.			DESCRIPTION OF FUEL WITH ACTUAL QUANTITY CONSUMED AND COST PER TON.									CONSUMPTION IN lb. *			
			Name.†	AVERAGE DISTANCE CARRIED IN MILES.‡		FOREIGN COAL.			INDIAN COAL.			WOOD.			Per train mile.	Per Engine mile.	Per 1,000 freight ton miles.	Per 1,000 gross ton miles.
				Coal.	Wood.	Quantity in tons.	Cost per ton.		Quantity in tons.	Cost per ton.		Quantity in tons.	Cost per ton.					
							Including freight.	Excluding freight.		Including freight.	Excluding freight.		Including freight.	Excluding freight.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
21 (A)	W. L. P.	{ 1899 1900 1901 1902 1903 }	England	\$	...	65 14 18 19'00 Included	...	...	...	...	...	5,919 4,239 4,698	...	...	46'78 45'58 46'42	44'36 44'32 45'43	...	262'84 301'71 296'80
22	U. C.	{ 1899 1900 1901 1902 1903 }	Bengal, Warora and Mohpani.	{ 1,000 1,082 826 875 977 }	...	...	...	...	750 1,202 862 898 863	25'31 25'44 25'30 18'23 18'71	4'50 4'50 4'25 4'62 3'65	3 3 3 3 4	8'00 7'42 9'30 4'86 7'00	...	32'90 40'95 37'49 38'50 37'37	28'88 37'46 31'79 36'02 35'02	892'25 793'71 891'31 942'41 1,438'32	165'02 180'20 180'15 192'23 207'76
24	B. L.	{ 1899 1900 1901 1902 1903 }	Singareni	{ ... ... 441 ...	...	...	...	...	...	...	...	677 655 566	4'19 5'00 4'97	4'19 ...	34'26 31'90 40'75	33'74 31'14 39'32	...	...
28	K. S.	{ 1899 1900 1901 1902 1903 }	Bengal	{ ... ... 1,021 ...	...	...	...	...	288	20'00	2'25	...	...	...	46'48	35'75	...	...
30	M. B. W.	{ 1899 1900 1901 1902 1903 }	England and Bengal.	{ 386 386 386 29 ...	...	1,224 1,373 2 ...	30'50 27'74 34'80 ...	19'00 20'00 26'80 ...	416 1,286 2,125 1,822 1,541	27'32 28'10 25'67 23'74 21'20	17'00 19'00 17'00 15'74 12'35	20 37 22 21 30	19'45 7'49 19'06 7'50 10'66	...	20'21 26'85 28'69 24'25 24'27	19'57 25'89 27'89 23'63 33'32	...	...
33	B. P.	{ 1899 1900 1901 1902 1903 }	Bengal	{ ... 126 157 ...	...	...	...	...	963 979 960	6'25 5'39 5'36	3'30 2'75 2'92	...	...	...	25'23 25'20 25'27	23'72 23'92 24'10	...	...
34	T. B.	{ 1899 1900 1901 1902 1903 }	Assam	{ ... ... ... ...	...	...	...	...	382 398 523	13'49 13'50 11'81	...	...	...	...	26'23 26'76 35'40	...	...	
36	D. H.	{ 1899 1900 1901 1902 1903 }	Bengal	{ 404 404 404 ...	...	...	...	...	3,067 3,385 3,052 3,422 4,666	...	2'75 3'12 3'12 3'12 3'12	...	...	41'72 40'24 38'38 40'81 53'28	41'72 40'24 38'38 40'81 53'28	...	...	
39	J.	{ 1899 1900 1901 1902 1903 }	Assam	{ ... ... 9 ...	...	...	...	...	773	13'76	13'62	...	...	...	33'15	...	...	
TOTAL		{ 1899 1900 1901 1902 1903 }	.....	{ ... ... 21,469 17,696 ...	...	83,939 56,589 13,248 21,469 17,696	...	...	1,560,204 1,858,061 1,956,601 2,091,992 2,203,889	...	...	347,890 340,380 409,150 402,442 487,185	...	...	...	...	...	

\* Calculated on the actual quantity of coal, and wood reduced in terms of coal at the rate of one ton of coal to 2½ tons of wood.  
 † The name of the sources of supply is for coal only. Wood was supplied from various sources.  
 ‡ The distance is reckoned either from the sources of supply or from the places of delivery to several storages.  
 § Prices are given at the place of delivery which is the place of storage.  
 ¶ This distance is by rail; the distance by sea is 637 miles.  
 † Excluding the Bukhtiarpoore-Bihar Light, Ranaghat-Krishnagar Light, Thaton-Duyinzaik, Howrah-Amta and Howrah-Sheakhala railways.



## APPENDIX 28.

Appendix 28.  
Coal production.

(Appendix 29 in Report for 1902.)

*Coal produced in India during the calendar years 1885 to 1903.*

(Referred to in paragraph 21 of Report.)

YEARS.	QUANTITY PRODUCED IN EACH PROVINCE.												Quantity of Indian coal consumed by railways in India.	QUANTITY OF INDIAN COAL EXPORTED BY SEA.		QUANTITY OF FOREIGN COAL IMPORTED INTO INDIA.	
	Bengal.	Central Provinces.	Assam.	Central India.	Nizam's territory.	Punjab.	Kashmir.	Baluchistan.	Rajputana (Bikaner).	Madras.	Burma.	Total.		To Indian ports excluding Burma.	To ports outside India including Burma.	From United Kingdom.	From other countries.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.	Tons.
1885.	1,123,700	119,116	48,707	7,698	...	...	...	...	...	...	...	1,294,221	486,716.	...	500	778,643	40,653
1886.	1,186,802	117,287	70,859	13,539	...	...	...	...	...	...	...	1,388,487	470,075	...	199	698,482	44,652
1887.	1,319,090	123,981	89,302	15,497	3,259	7,523	...	411	...	...	...	1,564,063	488,774	...	315	786,149	43,010
1888.	1,380,594	157,768	101,528	41,530	13,382	11,249	...	2,802	...	...	...	1,708,903	551,770	Information is not available.	15,796	785,776	20,463
1889.	1,541,316	144,465	116,676	52,956	59,646	22,835	...	8,238	...	...	...	1,946,172	715,240		39,972	717,024	52,180
1890.	1,626,245	137,022	145,708	77,842	125,436	40,677	...	15,541	...	...	...	2,163,521	654,829		26,336	631,725	21,857
1891.	1,747,122	141,736	154,208	69,741	144,668	60,714	...	10,368	...	20	...	2,328,577	797,142		4,515	726,069	17,344
1892.	1,920,050	132,005	164,050	88,623	149,601	66,352	...	13,284	...	61	3,670	2,537,696	885,492		15,725	628,374	23,123
1893.	1,902,866	135,118	164,420	94,348	157,421	77,294	...	20,094	...	502	9,938	2,562,001	924,900		52,302	616,319	18,066
1894.	2,035,934	140,495	169,448	132,837	240,525	66,467	...	24,753	...	1,337	12,111	2,823,907	1,062,748	143,813	154,282	675,043	57,112
1895.	2,716,155	122,776	172,717	118,479	292,915	72,493	...	25,458	...	1,737	17,289	3,540,019	1,119,621	162,276	211,407	773,675	15,458
1896.	3,037,920	141,195	177,259	115,386	262,681	79,017	...	26,257	...	...	22,993	3,863,698†	1,182,051	389,842	191,030	524,420	93,212
1897.	3,142,497	131,629	185,533	124,778	365,550	92,792	...	12,043	...	...	11,472	4,066,294	1,328,120	731,742	390,979	210,257	47,016
1898.	3,622,090	149,709	200,329	134,726	394,622	85,862	...	13,372	511	...	6,978	4,605,196	1,418,241	737,689	490,290	297,076	84,209
1899.	4,035,265	156,576	225,623	164,569	401,216	81,835	...	15,822	4,249	...	8,105	5,093,260	1,560,771	672,311	467,306	406,451	112,064
1900.	4,978,492	172,842	216,736	164,489	469,291	74,083	...	23,281	9,250	...	10,228	6,118,692	1,853,061	1,030,709	711,874	91,710	43,939
1901.	5,487,585	191,516	254,100	164,362	421,218	67,730	...	24,656	12,094	...	12,466	6,635,727	1,956,631	1,157,992	645,953	112,519	79,108
1902.	6,259,336	196,981	221,096	171,538	455,424	55,373	1,198	33,889	16,503	...	13,302	7,424,480	2,091,992	974,602	728,316	196,574	20,773
1903.	6,403,503	159,066	239,823	193,277	362,733	43,704	999	46,909	21,764	...	9,306	7,480,589	2,203,889	1,235,318	723,873	133,711	30,423

\* Up to 1893 figures in this column relate to official years and exclude exports to Burma ports.  
† Including 1,000 tons produced in the United Provinces of Agra and Oudh in 1896.

**Appendix 29.**  
**Collieries.**
**APPENDIX 29.**

(Appendix 30 in Report for 1902.)

*Collieries owned and worked by Railways or the State.*

PARTICULARS.	KURHURBAREN AND SHRAMPORE.		WARORA.		DANDOT.		KHOSI.		HARANPUR PRESSED FUEL FACTORY.		REMARKS.	
	1902.	1903.	1902.	1903.	1902.	1903.	1902.	1903.	1902.	1903.		
Name of owner	East Indian Railway.		State		North State Western Railway.		North State Western Railway.		North State Western Railway.			
Capital outlay . . Ra.	16,85,576	19,11,613	15,25,998	14,68,525	1,85,460	1,90,094	2,65,746	3,37,171	71,935	83,294	* Approximate. The outlay is made up of the purchase money, Rs. 3,05,154, which represents half the original cost of buildings, plant, etc., paid to the East Indian Railway Company on valuation, and the Capital expenditure incurred from 1st January 1880. † Steam coal. ‡ Nut coal. § Dust and mixed coal.    Pressed fuel.	
Output	Large coal. Tons	518,778	513,774	120,397	100,745	37,402	430,559	16,298	15,871	...		...
	Small coal. Tons	38,513	24,166	89,969	26,878	3,431	12,374	1,470	11,425	...		...
	Slack coal. Tons	56,498	62,151	...	...	14,552	10,758	8,184	19,149	...		...
	Total. Tons	613,789	600,091	153,366	127,623	55,385	43,691	25,942	36,445	16,410		15,857
Quantity issued . Tons	576,882	587,327	153,366	127,623	55,384	43,691	25,982	36,445	16,410	15,857		
Earnings . . Ra.	11,99,981	10,85,816	7,00,028	5,92,484	3,62,161	2,80,988	2,77,631	3,57,055	64,095	58,572		
Working expenses . Ra.	11,99,981	10,85,816	4,38,998	3,99,238	3,64,321	3,24,768	2,58,983	2,99,674	61,259	54,475		
Net earnings . . Ra.	...	...	2,61,030	1,93,246	-2,160	-43,780	18,648	57,381	2,836	4,097		
Percentage on Capital	...	...	17.11	13.16	...	...	7.01	17.02	3.94	4.92		
Average No. of persons employed daily.	3,500	3,464	1,287	1,235	1,569	1,403	639	648	15	15		
Number of tons raised per person employed.	72	70	119	103	36	31	41	56	2	2		
Number of persons killed.	2	3	1	1	1	1	4	1	...	...		
Number of persons injured.	42	36	5	2	12	10	5	1	1	1		

## APPENDIX 30.

Appendix 30.  
Accidents.

(Appendix 38 in Report for 1902.)

*Accidents and casualties to trains on railways treated as one System during the Calendar years 1902 and 1903.*

(Referred to in paragraph 32 of Report.)

DESCRIPTION.	Accidents reported to Local Governments under section 83 of the Indian Railways Act, IX of 1890, & c., serious accidents.		Other accidents.		Total number of accidents.		NUMBER OF PASSENGERS AND OTHERS.				NUMBER OF SERVANTS.				TOTAL OF ALL CLASSES.			
	1902.	1903.	1902.	1903.	1902.	1903.	Killed.		Injured.		Killed.		Injured.		Killed.		Injured.	
							1902.	1903.	1902.	1903.	1902.	1903.	1902.	1903.	1902.	1903.	1902.	1903.
1. Collisions between passenger trains or parts of passenger trains . . . . .	4	6	8	5	7	11	...	16	32	44	...	1	1	3	...	17	38	47
2. Collisions between passenger trains and goods or mineral trains, engine and vehicles standing foul of the line . . . . .	39	23	34	28	79	51	2	24	53	86	7	4	30	13	9	23	83	49
3. Collisions between goods trains or parts of goods trains . . . . .	11	10	33	56	44	66	...	2	...	...	11	2	29	19	11	4	29	19
4. Collisions between light engines . . . . .	1	4	13	22	14	26	...	...	...	...	...	1	1	3	...	1	1	3
5. Passenger trains or parts of passenger trains leaving the rails . . . . .	72	76	62	75	134	151	31	1	37	8	...	...	5	...	31	1	42	8
6. Goods trains or parts of goods trains, engines, etc., leaving the rails . . . . .	7	3	231	216	238	219	...	...	...	...	1	1	5	...	1	1	5	...
7. Trains or engines travelling in the wrong direction through points . . . . .	11	17	95	114	106	131	...	*1	†7	‡10	1	...	3	9	1	1	10	19
Trains running into stations or sidings at too high a speed . . . . .	3	3	27	19	30	22	...	...	10	...	...	...	1	6	...	...	11	6
9. Trains running over cattle on the line . . . . .	14	18	2,469	2,565	2,483	2,583	*3	*1	*5	‡3	...	3	1	11	3	4	6	14
10. Trains running over obstructions on the line . . . . .	19	12	121	133	140	145	*2	*2	*4	*2	...	...	2	3	2	2	6	5
11. Trains running through gates at level-crossings . . . . .	3	2	32	43	35	45	*1	...	...	...	...	...	1	1	1	...	1	1
12. The bursting of boilers of engines . . . . .	...	...	1	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...
12. (a) The bursting of tubes, etc., of engines . . . . .	...	3	313	260	313	263	...	...	...	...	...	...	...	5	...	...	...	5
13. The failure of machinery, springs, etc., of engines . . . . .	3	4	752	774	755	778	...	...	...	1	...	...	1	...	...	...	1	1
14. The failure of tyres . . . . .	1	...	4	10	5	10	...	...	...	...	...	...	...	...	...	...	...	...
15. Ditto of wheels . . . . .	...	1	5	8	5	9	...	...	...	...	...	...	...	...	...	...	...	...
16. Ditto of axles . . . . .	13	11	53	77	71	88	...	...	...	...	...	...	...	...	...	...	...	...
17. Ditto of brake apparatus . . . . .	...	...	6	6	6	6	...	...	...	...	...	...	...	...	...	...	...	...
18. Ditto of couplings . . . . .	4	5	340	327	344	332	6	2	15	16	4	...	4	1	10	2	19	17
19. Ditto of tunnels, bridges, viaducts, culverts, etc. . . . .	1	2	2	2	3	4	...	...	...	...	...	...	...	...	...	...	...	...
20. Broken rails . . . . .	1	1	207	149	208	150	...	...	...	...	...	...	...	...	...	...	...	...
21. The flooding of portions of permanent-way . . . . .	29	39	91	119	120	158	75	...	6	...	4	...	...	2	79	...	6	2
22. Slips in cuttings or embankments . . . . .	10	6	52	27	62	39	...	...	...	...	...	...	...	1	...	...	...	1
23. Fire in trains . . . . .	4	3	215	240	219	243	...	...	...	...	...	...	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts . . . . .	8	4	73	72	81	76	*7	**7	*1	†3	4	...	...	1	11	7	1	4
25. Other accidents . . . . .	23	40	632	583	655	623	13	†5	‡27	*1	5	3	11	16	18	8	38	17
TOTAL . . . . .	286	298	5,866	5,931	6,152	6,224	1140	††61	1197	1124	37	15	95	94	177	76	292	218

\* Not passengers.  
† Of these, two were not passengers.  
\*\* Of these, four were not passengers.

§ Of these, one was not a passenger.  
|| Of these, thirteen were not passengers.  
†† Of these, eleven were not passengers.  
‡ Of these, seven were not passengers.

## Appendix 31.

## Railway Servants and Provident Fund.

APPEN

[Appendix 39 in

Numerical Return of Servants of all races employed on each railway system (open lines only) and  
(Referred to in paragraph

Number.		RAILWAY SYSTEM.	NUMBER OF SERVANTS EMPLOYED.							
			Europeans.		Eurasians.		Natives.		Total.	
			1902.	1903.	1902.	1903.	1902.	1903.	1902.	1903.
Main head.	Sub-head.									
1	...	Bengal Central . . . . .	8	11	14	12	1,461	1,538	1,483	1,561
2	...	Bengal-Nagpur . . . . .	313	393	587	695	†16,765	20,409	†17,665	21,497
3	(a) to (f) & (m) & (n).	Bombay, Baroda and Central India . . . . .	†215	229	†261	256	†14,307	15,041	†14,788	15,526
4	...	Eastern Bengal State . . . . .	224	306	410	422	21,460	22,015	22,154	22,743
5	...	East Indian . . . . .	1,512	1,438	956	905	74,554	70,629	77,022	72,972
6	...	Great Indian Peninsula . . . . .	969	1,001	950	957	53,705	54,253	55,624	56,211
7	...	Madras . . . . .	243	254	1,472	1,501	20,880	22,103	22,595	23,858
8	...	Nizam's Guaranteed State . . . . .	88	82	†393	361	†7,503	7,612	7,984	8,055
9	...	North Western State . . . . .	310	321	647	700	52,437	53,912	53,893	55,434
10	...	Ondh and Rohilkhand State . . . . .	266	275	208	286	16,717	18,478	17,191	19,039
11	...	Assam-Bengal . . . . .	53	53	121	120	5,127	5,185	5,301	5,358
12	...	Bengal and North-Western . . . . .	155	154	188	169	13,023	17,065	18,371	17,388
13	...	Bengal-Dooars . . . . .	4	6	5	4	808	883	817	895
14	...	Bhavnagar-Gondal-Junagad-Porbandar . . . . .	14	11	24	20	2,588	2,516	2,626	2,556
15	...	Burma . . . . .	135	182	484	597	12,033	13,209	12,657	13,984
16	...	Deoghar . . . . .	...	...	1	1	†61	62	†62	63
17	...	Dibrn-Sadiya . . . . .	9	10	...	...	895	879	904	889
18	...	Jodhpur-Bikaner . . . . .	13	13	3	4	3,108	3,244	3,124	3,261
3	(g) to (i)	Rajputana-Malwa . . . . .	†445	420	†542	553	†23,525	24,930	†24,512	25,908
19	...	Rohilkund and Kumaon . . . . .	26	24	16	16	3,326	2,964	3,368	3,004
20	...	South Indian . . . . .	104	110	578	624	12,565	13,350	13,247	14,084
21	...	Southern Mahratta . . . . .	175	179	396	428	13,414	13,841	13,985	14,446
22	...	Udaipur-Chitor . . . . .	2	2	...	...	358	366	360	368
24	...	Barsi Light . . . . .	1	1	2	2	185	188	188	191
25	...	Bukhtiarpore-Bihar Light . . . . .	...	2	...	...	...	101	...	103
28	...	Kalka-Simla . . . . .	...	15	...	...	...	327	...	342
30	...	Morvi . . . . .	1	1	1	2	503	492	505	495
31	...	Ranaghat-Krishnagar Light . . . . .	2	1	...	...	104	105	106	106
33	...	Tarakeshwar-Magra Light . . . . .	...	...	1	1	201	213	202	214
34	...	Tezapore-Balipara Light . . . . .	2	2	2	2	176	176	180	182
36	...	Darjeeling-Himalayan . . . . .	20	21	8	10	936	856	964	889
37	...	Howrah-Amta Light . . . . .	3	3	1	1	317	318	321	322
38	...	Howrah-Sheakhala Light . . . . .	1	1	...	...	110	95	111	96
39	...	Jorhat . . . . .	2	1	...	...	193	205	195	206
TOTAL			5,875	6,022	8,271	8,661	378,355	387,566	392,501	402,249

\* Excludes bonus for the second-half of the year.

† Revised figures.

‡ The number under "Voluntary" represents subscribers over 5 per cent.

§ Approximate.

¶ Information not furnished.

\* Includes transactions of the Godhra-Bulham-Nagda railway.

DIX 31.

Appendix 31.  
Railway Servants and Provident Fund.

Report for 1902.)

the amounts deposited by them in the Provident Fund at the close of the Calendar year 1903.

35 and 38 of Report.)

AMOUNT DEPOSITED IN PROVIDENT FUND.						RAILWAY SYSTEM.	Number.		
Number of depositors.		Amount at credit on the 31st December 1903.						Main head.	Sub-head.
Voluntary.	Compulsory.	Voluntary.	Compulsory.	Bonus given by the Railway.	Total to depositors' credit.				
...	361	Rs. ...	Rs. 62,917	Rs. 35,609	Rs. 98,526	Bengal Central . . . . .	1	...	
180	3,211	44,560	7,50,167	*5,55,770	13,50,497	Bengal-Nagpur . . . . .	2	...	
...	2,795	...	16,60,499	14,38,989	30,99,488	Bombay, Baroda and Central India.	3	(a) to (f) & (m) & (n).	
123	4,534	21,257	10,35,680	9,12,936	19,69,873	Eastern Bengal State . . . . .	4	...	
1,57,056	1,58,962				1,19,33,861	East Indian . . . . .	5	...	
5	7,281	1,260	76,90,086	...	576,91,346	Great Indian Peninsula . . . . .	6	...	
76	5,606	92,153	13,33,710	10,49,830	24,75,193	Madras . . . . .	7	...	
...	1,218	...	4,17,255	3,57,440	7,74,695	Nizam's Guaranteed State . . . . .	8	...	
372	6,937	87,622	27,97,278	24,96,821	53,81,721	North Western State . . . . .	9	...	
95	2,545	26,447	7,07,301	5,87,086	13,20,834	Oudh and Rohilkhand State . . . . .	10	...	
...	890	...	1,48,156	87,910	52,36,096	Assam-Bengal . . . . .	11	...	
5	1,990	1,060	6,47,952	5,97,878	12,46,690	Bengal and North-Western . . . . .	12	...	
...	129	...	15,882	11,902	27,184	Bengal Doozars . . . . .	13	...	
143	461	35,125	1,78,335	1,26,617	3,35,077	Bhavnagar-Gondal-Junagad-Forbandar.	14	...	
...	2,521	...	6,55,218	5,05,661	11,60,909	Burma . . . . .	15	...	
...	...	...	...	...	...	Deoghur . . . . .	16	...	
...	...	...	...	...	...	Dibru-Sadiya . . . . .	17	...	
30	347	5,058	57,984	51,677	1,14,719	Jodhpur-Bikaner . . . . .	18	...	
319	3,530	66,982	14,73,891	13,51,705	128,92,578	Rajputana-Malwa . . . . .	3	(g) to (l).	
8	439	231	1,26,407	1,09,119	2,35,757	Rohilkund and Kumaon . . . . .	19	...	
8	2,469	2,584	9,11,399	4,84,451	13,98,434	South Indian . . . . .	20	...	
...	3,319	...	10,21,450	4,79,878	15,01,328	Southern Mahratta . . . . .	21	...	
...	35	...	4,632	2,375	7,007	Udaipur-Chitor . . . . .	22	...	
...	...	...	...	...	...	Barsi Light . . . . .	24	...	
...	15	...	134	...	134	Bukhtiarpoore-Bihar Light . . . . .	25	...	
...	...	...	...	...	...	Kalka-Simla . . . . .	28	...	
...	...	...	...	...	...	Morvi . . . . .	30	...	
...	19	...	838	393	1,161	Ranaghat-Krishnagar Light . . . . .	31	...	
...	...	...	...	...	...	Tarakeshwar-Magra Light . . . . .	33	...	
...	...	...	...	...	...	Tespore-Balipara Light . . . . .	34	...	
...	131	...	1,34,116	68,267	2,02,383	Darjeeling-Himalayan . . . . .	36	...	
...	101	...	6,840	2,736	9,576	Howrah-Amta Light . . . . .	37	...	
...	23	...	1,376	551	1,927	Howrah-Sheakhala Light . . . . .	38	...	
9	25	870	4,331	2,358	7,559	Jorhat . . . . .	39	...	
8,424	50,924	3,35,209	2,18,88,854	1,13,16,629	4,55,24,553	TOTAL.			

Appendix 32.  
Volunteers.

APPENDIX 32.

(Appendix 40 in Report for 1902.)

Number of men enrolled in Railway Volunteer Corps on the 31st December 1903.

(Referred to in paragraph 36 of Report).

NUMBER.		Corps.	ENROLLED STRENGTH.					Sergeant Instructors furnished by the Army.	REMARKS.	
			EFFICIENTS.			Non-efficient.	Total number of volunteers in corps.			Total number of European and Eurasian employes on railway.
			Officers.	Non-Commissioned officers.	Volunteers.					
Main head.	Sub-head.									
2	...	Bengal-Nagpur . . . . .	31	131	752	174	1,088	1,088	9	
3	(a), (c) to (f) & (m) & (n).	Bombay, Baroda and Central India— <i>First Battalion, Bombay, Baroda and Central India Railway Volunteer Rifles</i> . . . . .	20	98	497	...	615	485	5	* Includes 24 Goanese and 3 Jews, etc.
4	...	Eastern Bengal State . . . . .	3	26	119	†517	665	728	4	† The large number of non-officers due to the date of closing the volunteer season being the 31st March.
5	...	East Indian . . . . .	65	173	1,841	34	2,113	2,343	17	‡ Includes 8 Goanese in the Band.
6	(a) and (f).	Great Indian Peninsula— <i>First Battalion, Great Indian Peninsula Railway Volunteer Rifles</i> . . . . .	33	92	957	1	†1,088	1,958	10	‡ Includes 8 Goanese in the Band.
6	(b) to (e).	Indian Midland— <i>Second Battalion, Great Indian Peninsula Railway Volunteer Rifles</i> . . . . .	12	54	374	13	453		3	
7	...	Madras . . . . .	28	101	759	179	1,067	1,755	11	
8	...	Nizam's Guaranteed State— <i>Hyderabad Volunteer Rifles</i> . . . . .	9	31	208	...	248	443	3	
9	...	North Western State— <i>Third Punjab (North Western State Railway) Volunteer Rifles</i> . . . . .	32	119	1,067	11	1,249	1,521	12	
10	...	Oudh and Rohilkhand State— <i>Oudh Volunteer Rifles</i> . . . . .	27	49	333	157	466	561	4	
11	...	Assam-Bengal . . . . .	15	28	267	...	‡250	173	3	§ Includes employes on construction works.
12	...	Bengal and North-Western . . . . .	18	55	246	7	‡326	323	6	Includes Parsees, 3 West Indians and Goanese.
14	...	Bhavnagar-Gondal-Junagad- Porbandar— <i>First Battalion, Bombay, Baroda and Central India Railway Volunteer Rifles, F. Company</i> . . . . .	1	7	21	6	‡35	40	1	¶ Includes 12 Goanese and 3 Jews
15	...	Burma . . . . .	25	90	622	9	746	779	9	
3	(b) and (g) to (h).	Rajputana-Malwa— <i>Second Battalion, Bombay, Baroda and Central India Railway Volunteer Rifles</i> . . . . .	33	90	632	4	759	978	10	
19	...	Rohilkhand and Kumaon— <i>Bengal and North-Western Railway Volunteer Rifle Corps</i> . . . . .	...	1	23	...	24	40	**	** The Sergeant-Instructor of "C" Company, Bengal and North-Western Railway Volunteers at present performs the duties.
20	...	South Indian . . . . .	12	76	389	69	546	734	8	†† Includes 166 Goanese.
21	...	Southern Mahratta . . . . .	19	112	542	...	††673	605	7	
30	...	Morvi— <i>First Battalion, Bombay, Baroda and Central India Railway Volunteer Rifles</i> . . . . .	...	...	3	...	3	3	††	†† The Sergeant-Instructor of the Bhavnagar-Gondal-Junagad-Porbandar Railway is also attached to the Morvi Railway.
33	...	Tarakeswar-Magra . . . . .	...	...	‡‡1	...	1	1	...	‡‡ Attached to the East Indian Railway Volunteer Rifles.
36	...	Darjeeling-Himalayan— <i>Northern Bengal Mounted Rifles, "A" and "B" Troops.</i> . . . .	...	...	16	1	17	31	...	
TOTAL			403	1,333	9,509	1,182	12,427	14,589	122	

N.B.—European and Eurasian employes on railways which have no volunteer corps are excluded from this statement.

## APPENDIX 33.

Appendix 33.

Police.

(Appendix 41 in Report for 1902.)

*Strength and cost of the Police force on each Railway system (open lines), and the amount of compensation payments on account of claims for goods traffic for the Calendar year 1903.*

(Referred to in paragraph 37 of Report.)

NUMBER.		RAILWAY SYSTEM.	Subordi- nate officers.	Consta- bles and men.	PORTION OF THE TOTAL ANNUAL COST BORNE BY THE RAILWAY.				Cost of force to the railway per mile open.	Compen- sation payments on account of claims for goods traffic.	REMARKS.
Main head.	Sub- head.				Supervi- sion.	Consta- bles and men.	Conti- nencies.	Total cost of force to the railway.			
			Average No.	Average No.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1	...	Bengal Central . . . . .	3	24	4,694	4,962	499	10,155	81.23	3,450	
2	...	Bengal-Nagpur . . . . .	53	527	14,860	35,230	1,967	52,007	28.02	4,030	
3	(a), (c) to (f) & (m) & (n).	Bombay, Baroda and Central India.	71	497	26,098	63,775	8,768	98,641	115.78	21,082	
4	...	Eastern Bengal State . . . . .	78	733	615	49,409	107	49,123	47.07	10,551	
5	...	East Indian . . . . .	64	1,872	55,808	1,31,642	39,471	2,26,921	103.22	1,02,341	
6	...	Great Indian Peninsula . . . . .	33	1,350	60,454	1,18,212	18,323	1,96,989	70.13	1,31,768	
7	...	Madras . . . . .	22	562	14,925	65,442	8,990	89,357	60.14	5,614	
8	...	Nizam's Guaranteed State . . . . .	3	389	17,490	44,654	2,446	64,590	87	1,073	
9	...	North Western State . . . . .	...	1,350	...	1,23,569	778	1,24,347	32.07	41,500	
10	...	Oudh and Rohilkhand State . . . . .	11	558	5,249	35,861	2,375	43,489	38.44	19,558	
11	...	Assam-Bengal . . . . .	8	175	2,136	13,337	1,054	16,527	24.46	2,831	
12	...	Bengal and North-Western . . . . .	14	556	2,372	44,926	3,647	50,945	38.31	5,180	
13	...	Bengal Doonars . . . . .	...	3	...	770	...	770	5.03	898	
14	...	Bhavnagar-Gondal-Junagad-For- bandar.	26	123	16,787	11,579	6,458	34,824	76.46	134	
15	...	Burma . . . . .	93	414	21,024	66,323	24,147	1,11,499	83.40	6,391	
18	...	Jodhpur-Bikaner . . . . .	3	36	1,726	3,285	483	5,494	6.67	9,706	
3	(b) & (g) to (h).	Rajputana Malwa . . . . .	123	647	33,341	78,834	10,866	1,23,091	60.82	27,525	
19	...	Rohilkund and Kumaon . . . . .	11	142	1,631	11,255	1,571	14,457	43.75	1,692	
20	...	South Indian . . . . .	...	221	...	56,290	...	56,290	43.47	2,727	* Including co of Governme supervisio Rs. 42,634.
21	...	Southern Mahratta . . . . .	14	719	28,267	94,103	7,882	1,30,252	81.65	6,335	
24	...	Barsi Light . . . . .	1	4	...	790	23	813	37.66	2,875	
30	...	Morvi . . . . .	3	12	772	1,232	596	2,600	27.65	22	



Appendix 34.  
Fine Funds.

## APPENDIX 34.

(Appendix 42 in Report for 1902.)

## Transactions of the Fine Funds for the Calendar year 1903.

(Referred to in paragraph 39 of Report.)

NUMBER.		RAILWAY SYSTEM.	ASSETS.				DISBURSEMENTS.						Balance on 31st December 1903.
Main head.	Sub-head.		Balance on 31st December 1902.	Fines and bonus forfeited during 1902.	Interest on balance.	Total.	Hospitals for sick employes.	Compassionate allowances.	Schools.	Recreation clubs.	Miscellaneous.	Total.	
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	...	Bengal Central	3,823	1,076	127	5,026	...	...	...	...	21	21	5,00
2	...	Bengal-Nagpur	14,771	13,894	209	28,874	...	...	800	5,170	5,992	11,462	17,41
3	(a) to (f) & (m) & (n)	Bombay, Baroda and Central India	*11,990	3,156	378	15,524	50	1,006	50	1,510	669	3,305	12,21
4	...	Eastern Bengal State	8,554	12,195	240	20,989	...	406	2,619	6,173	3,085	12,263	8,70
5	...	East Indian	*77,893	20,664	3,024	1,01,601	...	75	2,643	1,900	681	5,259	96,30
6	...	Great Indian Peninsula	*7,510	13,300	641	21,451	200	1,420	2,291	4,946	4,580	13,437	8,01
7	...	Madras	*1,05,909	9,128	3,666	1,18,703	71	2,892	1,370	211	1,401	5,945	1,12,75
8	...	Nizam's Guaranteed State	4,899	1,924	125	6,948	360	...	1,057	50	307	1,774	5,17
9	...	North Western State	13,948	14,888	198	29,034	100	45	5,000	7,667	3,798	16,610	12,42
10	...	Ondh and Rohilkhand State	25,506	4,922	863	31,290	...	...	3,548	2,143	6,708	12,394	18,89
11	...	Assam-Bengal	9,489	3,654	...	13,143	...	125	600	733	283	1,741	11,40
12	...	Bengal and North-Western	*55,437	18,306	1,035	74,778	...	650	...	6,370	2,191	9,211	65,56
13	...	Bengal Dooars	1,547	494	46	2,087	...	...	...	50	...	50	2,037
14	...	Bhavanagar-Gondal-Junagad- Porbandar	6,049	740	185	6,974	...	...	...	1,217	598	1,845	5,12
15	...	Burma	*10,258	18,855	...	29,113	...	...	2,323	6,084	12,821	21,028	7,58
16	...	Jodhpur-Bikaner	1,963	1,830	...	3,793	...	...	...	45	...	45	3,74
17	(g) to (i)	Rajputana-Malwa	61,137	9,153	1,902	72,192	...	554	2,798	385	4,787	8,474	63,71
18	...	Rohilkhand and Kumaon	66	156	718	940	...	...	...	...	310	310	630
19	...	South Indian	*1,39,797	7,806	4,390	1,51,493	...	1,180	...	2,413	1,073	4,616	†1,46,877
20	...	Southern Mahratta	913	3,792	19	4,724	100	70	839	1,910	1,370	4,309	415
21	...	Udaipur-Chitor	430	52	...	482	...	...	...	150	50	200	282
22	...	Morvi	911	168	...	1,079	...	77	...	...	3	80	999
23	...	Tarakeshwar-Magra	*1	58	...	59	59	...	...	...	...	59	...
24	...	Darjeeling-Himalayan	*180	111	...	291	...	...	...	100	2	102	189
25	...	Jorhat	209	98	6	311	...	...	...	...	...	...	311

\* Revised figures.

† Approximate.

APPENDIX 35.

(Appendix 48 in Report for 1902.)

Appendix 35.  
Schools.

Railway and Railway Aided Schools at the close of the Calendar year 1903.

(Referred to in paragraph 40 of Report.)

N.B.—A reference to Appendix 1 will furnish the key to the letters used to denote railways.

NUMBER.	RAILWAY SCHOOLS.													RAILWAY AIDED SCHOOLS.					
	RAILWAY SYSTEM.		Number of schools.	ATTENDANCE.				ANNUAL CONTRIBUTIONS.					Annual expenditure.	AVERAGE DAILY ATTENDANCE.		ANNUAL RAILWAY GRANT.			
				Children.		Apprentices and workmen.		By Government.	By Railway.			By school fees.		Total.	Children.	Apprentices and workmen.	From Revenue.	From Fine Fund.	
				Number on the rolls.	Average daily attendance.	Number on the rolls.	Average daily attendance.		From Revenue.	From Fine Fund.	From Revenue.								From Fine Fund.
Main head.	Sub-head.						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.			Rs.	Rs.			
2	...	B N.	{ European	5	171	138	...	...	Rs. 1,215	Rs. 3,199	...	Rs. 2,816	Rs. 7,230	Rs. 6,793	4	133	...	Rs. 900	...
			{ Native	3	203	171	...	...	178	899	300	1,105	2,432	2,990	...	...	...	...	...
3	(a) to (f) & (m) & (n).	B. B. & C. I.	{ European	4	127	95	22	18	1,252	5,190	50	1,983	8,475	8,234	17	47	...	3,136	...
			{ Native	...	...	...	...	...	...	...	...	...	...	...	4	105	...	1,962	1,962
4	...	E. B. S.	{ European	...	...	...	...	...	...	...	...	...	...	...	11	440	...	657	657
			{ Native	5	95	71	278	81	...	1,593	...	...	1,593	1,593	...	...	...	...	...
5	...	E I.	{ European	16	811	732	55	47	12,103	128,586	2,108	79,990	1,22,757	99,782	3	132	...	1,926	...
			{ Native	59	3,162	2,159	2,578	1,026	3,533	3,702	2,643	21,803	81,681	29,110	...	...	...	...	...
6	(a)	G. I. P.	{ European	6	216	175	...	...	2,769	12,560	1,678	2,101	19,403	19,403	15	7	7	5,451	...
			{ Native	...	...	...	...	...	...	...	...	...	...	...	1	7	7	240	...
6	(b) to (f)	I. M.	{ European	2	119	70	...	...	...	4,507	578	1,016	6,101	6,101	...	...	...	...	...
			{ Native	...	...	...	...	...	...	...	...	...	...	...	2	7	7	541	40
7	...	M.	{ European	8	385	290	...	...	5,371	10,171	1,091	3,790	20,423	21,247	5	81	...	1,005	279
8	(a) & (b)	N. G. S.	{ European	1	47	39	...	...	...	1,416	...	423	1,639	1,117	3	123	...	240	554
			{ Native	1	34	25	9	6	...	936	...	23	959	839	5	337	...	...	503
9	...	N. W.	{ European	2	61	43	43	23	1,810	1,934	**346	880	4,970	4,668	15	297	...	12,134	**2,166
			{ Native	24	183	105	1,372	438	...	5,809	**38	283	6,130	4,997	4	123	...	1,667	**298
10	...	O. & B.	{ European	4	56	45	38	33	1,548	1,394	1,694	1,022	5,658	4,636	16	80	...	6,065	1,123
			{ Native	3	2	2	219	70	...	392	34	...	366	366	2	118	...	...	697
11	...	A. B.	{ European	1	14	10	...	...	225	...	600	158	933	1,176	...	...	...	...	...
12	...	B. & N. W.	{ European	2	70	55	...	...	647	1,766	...	853	3,266	3,665	...	...	...	...	...
			{ Native	...	...	...	...	...	...	...	...	...	...	...	2	55	...	324	...
14	...	B. G. J. P.	{ European	1	11	14	...	...	...	147	...	297	444	1,862	...	...	...	...	...
			{ Native	1	42	32	...	...	...	350	...	76	426	497	...	...	...	...	...
15	...	B.	{ European	3	55	49	18	7	1,516	78	678	1,343	3,615	2,640	15	33	...	290	290
			{ Native	3	178	150	29	23	1,276	533	1,018	2,856	5,678	4,199	15	35	...	342	342
17	...	D. S.	{ European	1	129	103	...	...	...	300	...	987	1,287	1,702	...	...	...	...	...
8	(c)	H. G. V.	{ Native	1	11	10	...	...	...	420	...	67	487	374	...	...	...	...	...
3	(g) to (l)	R. M.	{ European	9	361	178	92	82	2,620	4,891	1,362	5,347	14,220	14,846	1	65	...	...	180
			{ Native	2	...	...	47	43	...	224	147	...	371	371	4	261	...	302	1,169
20	...	S. I.	{ European	4	159	149	...	...	1,083	4,587	...	929	6,599	4,715	...	...	...	...	...
			{ Native	1	34	34	...	...	53	381	...	174	608	390	...	...	...	...	...
21	...	S. M.	{ European	8	249	193	...	...	976	5,100	120	1,620	7,616	7,853	7	85	...	...	659
			{ Native	8	30	22	181	71	...	1,025	...	111	1,136	1,128	1	263	...	...	80
		TOTAL		188	6,965	5,159	4,976	1,973	38,175	1,02,330	14,475	1,32,053	2,87,033	2,56,784	149	2,813	...	37,182	10,939

\* Includes an apprentice class for Europeans and Natives.

† Includes the joint railway schools at Aligarh, Moghal Sarai and Ghaziabad.

‡ Includes Rs. 672 received from the North Western State railway for the joint railway school at Ghaziabad, Rs. 300 and Rs. 156 received from the Oudh and Rohilkhand State railway for the joint railway schools at Aligarh and Moghal Sarai respectively, and Rs. 11,822 received from the North Western State railway for the "Oakgrove School," Mussoorie.

§ Amount received from the Fine Fund of the North Western State railway for the "Oakgrove School," Mussoorie.

¶ Includes 10 schools for Europeans and Natives.

‡ Information not furnished.

\*\* In addition to these grants from the Fine Fund, the North Western State railway also subscribed Rs. 2,108 from the Fine Fund for the "Oakgrove School" at Mussoorie, particulars of which are included with the East Indian railway schools and Rs. 44 to the "Cathedral Orphanage," Lahore.

Appendix 36.  
Cost of bridges.

APPEN  
(Appendix 4

Cost and particulars of the railway bridges in India of 1,000 feet length and

(Referred to in par

RAILWAY.	Serial No. of bridges.	NAME OF BRIDGE.	Date of opening.	No. of spans.	Span in clear.	Length of bridge.	Depth of foundation below low-water.	Height from low-water level to underside of girders.	Total weight of girders.	Cost of work to girder-level.	
					Feet.	Feet.	Feet.	Feet.	Tons.	Rs.	
2 (a)—BENGAL-NAGPUR.	1	Kanhan (near Kamptee)	1st Sept. 1887	6	170-00	1,237-00	9 to 26	50-00	1,061-10	4,29,917	
				2	60-00						
		2	Weinganaga (near Tumsar Road).	29th April 1889	9	150-00	1,450-00	21	54-00	1,234-47	(a)7,50,810
		3	Sheonath No. II (near Nipania)	31st May 1889	14	150-00	2,250-00	6 to 12	57-00	1,912-40	4,93,433
		4	Eeb (near Jharsuguda)	1st Aug. 1890	9	150-00	1,461-00	42 to 55	38-00	1,229-40	2,63,515
		5	Damoodur (near Damoodur)	12th June 1890	10	200-00	2,340-00	74-22	40-75	2,930-00	3,67,838
				2	100-00						
		6	Rusha Kulya (near Chattrapur).	1st Sept. 1895	10	150-00	1,598-00	70-00	23-00	1,437-25	3,33,096
		7	Subanrika (near Jellasore)	6th Mar. 1899	11	150-00	1,908-00	65-00	30-00	1,558-00	5,14,186
				2	60-00						
		8	Byturney (near Jajpore Road)	15th Oct. 1899	15	150-00	2,400-00	73-01	27-73	2,173-00	4,95,511
		9	Brahmini (near Jenapur)	15th Oct. 1899	29	150-00	4,640-00	78-06	31-83	4,162-00	10,43,265
		10	Berupa (near Cuttack)	15th Oct. 1899	16	100-00	1,728-00	45-18	32-96	1,172-80	3,41,667
		11	Mahanadi (near Cuttack)	11th Mar. 1900	64	100-00	6,912-00	68-80	23-54	4,691-21	15,11,654
		12	Kuakhai (near Cuttack)	2nd April 1900	19	150-00	3,212-00	80-78	36-32	2,870-00	7,67,512
	13	Kathjori (near Cuttack)	2nd April 1900	18	150-00	2,890-00	80-81	40-32	2,563-00	7,35,617	
	14	Roopnarain (near Kolaghat)	19th April 1900	7	300-00	2,632-00	88-00	39-75	4,163-00	27,30,815	
			4	100-00							
	15	Cossye Midnapur (near Khargpur).	1st Feb. 1900	16	100-00	1,736-00	70-00	34-40	1,168-00	(c)3,95,464	
3 (a)—POHBY, BARODA AND CENTRAL INDIA.	16	Nerbudda (near Broach)	Old 23rd June 1861 New 16th May 1881	25	183-50	4,637-50	76	48-50	4,650-00	23,21,000	
	17	Tapti (near Amroli)	19th Nov. 1860	30	60-00	1,875-00	20	50-50	1,950-00	...	
4 (a)—EASTERN BENGAL.	18	Gorai (near Kumarkhali)	1st Jan. 1871	7	174-71	1,759-00	75 to 95	53-17	1,645-00	...	
				9	43-69						
			2	18-00							
	19	Soane (near Koilwar)	22nd Dec. 1862	28	150-00	4,726-00	32	35-60	3,702-00	...	
	20	Jumna (near Allahabad)	15th Aug. 1865	14	200-00	3,150-00	42	58-75	4,300-00	29,86,000	
			2	30-00							
5 (a)—EAST INDIAN.	21	Jumna (near Delhi)	1st Jan. 1867	12	211-50	2,697-00	7 to 39	24-00	3,491-00	5,28,475	
				2	30-00						
				2	523-67	1,213-25	98-50	55-00	3,460-15	(m) 10,71,653	
				1	106-50						
				29	10-83	441-00	...	...	...	...	
				25	10-83						
				74	29-17	3,278-00	...	...	...	...	
			1	25-83							
			1	43-00							
			1	48-00							

## DIX 36.

in Report for 1902.)

## Appendix 36.

Cost of bridges.

over and costing not less than Rs. 6,00,000 each up to the 31st December 1903.

(graph 81 of Report.)

Total cost of girders.	Cost of protective works.	Total cost, including cost of protective works.	Cost per lineal foot, excluding protective works where separately stated.	Cost of erection of girders per ton.	Serial No. of bridges.	REMARKS.
Rs.	Rs.	Rs.	Rs.	Rs.		
2,84,040	...	7,18,957	577	Not known	1	No separate sub-head of erecting and painting given in the completion reports.
(b) 2,42,838	...	9,98,643	685	19	2	Has been converted from 3' 3½" to 5' 6" gauge and expenditure represents cost of the bridge as a 5' 6" gauge one. The 3' 3½" gauge was opened on the 7th June 1882 and 5' 6" gauge on the 29th April 1889.
3,90,160	...	8,83,593	393	89	3	(a) Includes the cost of the old 3' 3½" gauge bridge (Rs. 6,74,612). (b) Actual cost of girders only.
3,42,958	23,856	6,30,329	415	...	4	
6,27,561	44,107	10,89,006	421	62'47	5	
3,41,642	41,453	7,16,191	422	57	6	
4,15,862	...	9,30,048	457	69	7	
4,91,589	39,124	10,26,174	411	38	8	
9,65,685	1,32,782	21,41,732	433	34	9	
2,79,352	26,863	6,47,882	359	40	10	
11,77,784	1,02,346	27,91,784	388	35	11	
7,13,244	46,427	15,27,183	461	35	12	
6,38,133	86,705	14,10,455	475	33	13	
12,06,628	...	39,37,438	1,496	86	14	
2,57,477	4,161	6,57,102	376'12	43	15	(c) Excluding cost of protective works (Rs. 4,161).
12,58,929	(d) 5,92,643	(e) 41,72,572	764	40	16	The figures as to cost refer to the new bridge only; the cost of the old bridge is not known. (d) Including some special items not separately detailed. (e) Excluding cost of the approaches.
...	...	(f) 12,18,569	647	...	17	(f) Including Rs. 5,948, being the cost of raising rail-level on up and down lines and Rs. 3,05,539 on account of the renewal of Warren girders with 60 feet plate girders.
...	...	(g) 14,88,750	830	...	18	(g) Including Rs. 22,618 charged to Revenue, and Rs. 879 charged to Capital, for the protection of piers. The cost is approximate.
(h) 10,33,324	...	(i) 43,33,324	917	79	19	Has the rails above and the roadway below. The roadway was subsequently doubled. (h) Represents the cost of the second line only. (i) Represents the total expenditure on the bridge debited to Capital, and includes some special items not separately detailed, as well as the cost of iron work for the first line.
(j) 14,63,300	...	(k) 44,46,300	1,412	110	20	The substructure of this bridge is for a double line, but the girders are erected for a single line only. It has the rails above and the roadway below. (j) Of this amount Rs. 13,13,000 represents the cost of girders, and Rs. 1,47,300, the cost of upper and lower roadways. (k) Represents the total expenditure on the bridge debited to Capital, and includes some special items not separately detailed.
10,49,779	...	(l) 16,60,335	616	74	21	The girders of this bridge are erected for a double line. It has the rails above and the roadway below. (l) Represents the total expenditure on the bridge debited to Capital, and includes some special items not separately detailed.
21,78,852	1,21,184	38,71,689	2,679	(n) 350	22	(m) Including charges on account of plant, Rs. 3,31,544, and supervision Rs. 3,19,456. (n) Estimated.
...	...	64,611	147	...		The approach viaducts are brick arches.
...	...	4,80,263	147	...		

Appendix 36.  
Cost of bridges.

APPEN

(Appendix 48

Cost and particulars of the railway bridges in India of 1,000 feet length and

(Referred to in para

RAILWAY	Serial No. of bridge.	NAME OF BRIDGE.	Date of opening.	No. of spans.	Span in clear.	Length of bridge.	Depth of foundation below low-water.	Height from low-water level to underside of girders.	Total weight of girders.	Cost of work to girder-level.								
					Feet.	Feet.	Feet.	Feet.	Tons.	Rs.								
5' 6" gauge— contd.	5 (c)—EAST INDIAN— contd.	23 Barakar (near Barakar)	4th Sept. 1896	1	200'00	(b) 1,850'00	(c) 5 to 85 (d)	(e)	1,307'00	4,13,002								
				5	150'00													
				6	100'00													
				5	(a) 29-25													
	24	Sone (near Dehri)†	22nd Feb. 1900	98	100'00	10,052'00	88'00	26'50	6,510'00	14,28,857								
	25	Tonse (near Meja Road)	4th April 1864	7	150'00	1,194'00	27'75	59'67	1,207'00	8,74,885								
2				32'00														
	5 (c)—SOUTH BENGAL	26	3rd July 1899	18	100'00	2,064'00	45'00	18'00	1,520'00	5,74,861								
1				30'00														
	6 (c)—GREAT INDIAN PENINSULA.	27	9th Oct. 1873	36	100'00	8,855'09	(h) 9	48'67	2,556'00	(i) 8,11,163								
				28	Tapti (near Duskheda)						12th Aug. 1872	5	138'00	2,556'00	15'96	68'33	2,392'00	(j) 7,72,163
												28	59'00					
				29	Nerbudda (near Bikrampur)						8th Mar. 1870	5	137'00	1,052'00	4'60	81'33	525'00	4,06,032
	6	40'00																
	30	Girna (near Paldhi)	10th May 1901	9	166'16	1,572'00	48'00	57'00	1,653'00	4,52,221								
	6 (b)—BHO- PAL-ITANSI.	31	18th Nov. 1884	14	150'00	2,306'00	4	64'50	1,930'00	3,45,696								
				1	60'00													
	6 (c)—INDIAN MIDLAND.	32	15th May 1881	12	186'00	2,714'00	75	107'20	3,026'00	17,39,057								
				2	136'00													
		33	Jumna (near Kalpi)	1st Feb. 1868	10	250'00	2,626'00	90	77'00	3,200'00	12,65,642							
		34	Betwa (near Orchha)	5th June 1889	18	150'00	2,166'00	18	91'04	1,772'30	8,19,541							
					1	60'00												
		35	Ken (near Banda)	1st Aug. 1889	12	100'00	1,558'00	4	70'32	1,125'30	3,92,243							
	1	250'00																
	36	Betwa (near Basai)	1st Jan. 1889	9	150'00	1,446'00	12	58'14	1,200'86	4,02,749								
	7 (a)—MADRAS.	37	Cheyer (near Nandalar)	Old . 1st Sept. 1865	50	64'00	3,500'00	100	14'00	988'00	9,10,934							
				New . 1st May 1880														
		38	Tungabhadra (near Tungabhadra).	16th Jan. 1871	36	64'00	4,060'00	14	84'00	1,213'00	6,33,088							
		44	29'00 arches.															
	39	Ponner (near Penneru)	Old . May 1869	13	131'00	1,830'00	33 to 54'33	22'00	1,999'00	...								
			New . 1st Oct. 1889															
	40	Chitravati (near Kondapuram).	Old . 1st Sept. 1868	19	131'00	2,670'00	18 to 78	18'00	2,935'00	...								
			New . 6th Mar. 1890															
	41	Papachni (near Kamalapuram).	Old . Aug. 1866	20	64'00	1,410'00	...	...	...	...								
			New . 1st July 1892								15	131'00	2,110'00	52'50 to 62'00	15'00	2,391'00	5,93,030	

## DIX 36—continued.

in Report for 1902.)

## Appendix 36:

Cost of bridges.

over, and costing not less than Rs. 6,00,000 each up to 31st December 1903—contd.

(Graph 31 of Report.)

Total cost of girders.	Cost of protective works.	Total cost, including cost of protective works.	Cost per lineal foot, excluding protective works where separately stated.	Cost of erection of girders per ton.	Serial No. of bridges.	REMARKS.
Rs.	Rs.	Rs.	Rs.	Rs.		
3,79,078	(f) 13,726	8,05,806	428	58	23	(a) In viaducts. (b) From front to front of abutments. (c) On rock. (d) In sand. (e) Deck bridge various; 75 feet to rails.
16,85,480	1,18,393	*32,92,730	310	90	24	(f) Stone round piers only. No training works. † The superstructure of this bridge is for a double line, but the girders are erected for a single line only, hanging decked with corrugated steel floor plates. Hand rails on both sides, and a foot way below between girders for inspection. Rails above.
4,54,473	...	(g) 14,08,401	1,180	138	25	* Approximate. (g) Including Rs. 79,063 on account of cost of flooring.
3,70,681	15,060	† 9,60,402	458	25	26	Has the rails over girders. Pathway below formation, decked with corrugated sheets, girders hanging. † Approximate.
6,61,908	...	12,73,066	330	30	27	The girders are for a single line, and the piers for a double line. (h) Nine piers and two abutments are founded above low-water level.
7,90,175	64,910	16,27,248	611	71	28	(i) Including Rs. 25,656, being the cost of other items not separately detailed. Carries a double line. (j) Including Rs. 95,918, being the cost of other items not separately detailed.
2,63,064	...	6,69,096	636	235	29	The girders are for a single line, and the piers for a double line.
4,62,308	...	9,14,529	682	32	30	Braced N type girders over corrugated iron cylinder piers and a masonry abutment for single line.
5,77,925	...	(k) 9,44,171	422	85	31	(k) Including some special items not separately detailed.
9,02,295	6,29,683	32,71,035	973	78	32	
11,41,231	1,59,564	25,66,637	917	107	33	The abutments and piers are built for a double line, but the girders are erected for a single line only, with a roadway on the same level, which has been brought into use from the 1st May 1895.
5,74,179	...	13,93,720	643	85	34	
3,39,954	...	7,32,197	471	84	35	
3,59,308	2,615	7,64,672	527	64	36	The abutments are built for a double line.
1,95,689	...	(l) 12,45,464	356	...	37	(l) Including some special items not separately detailed, but excluding the cost of the old bridge, Rs. 4,06,293.
2,38,970	...	(m) 10,54,862	260	54	38	(m) Including Rs. 2,99,106, being the expenditure incurred on strengthening the bridge, and some special items relating to original construction not separately detailed.
2,84,610	...	(n) 11,32,077	619	...	39	The cost does not include the expenditure incurred on the old bridge, Rs. 1,72,576. (n) Includes some special items not separately detailed.
3,85,838	...	(o) 13,58,194	509	...	40	The cost does not include the expenditure incurred on the old bridge, Rs. 3,54,705.
...	...	(o) 1,62,354	...	...	41	(o) Approximate.
3,63,332	38,568	9,94,980	453	(p) 12		(p) Including superintendence and all charges after girders were unloaded from wagons.

Appendix 36.  
Cost of bridges.

APPEN  
(Appendix 48

Cost and particulars of the railway bridges in India of 1,000 feet length and

(Referred to in para

RAILWAY.	Serial No. of bridges.	NAME OF BRIDGE.	Date of opening.	No. of spans.	Span in clear.	Length of bridge.	Depth of foundation below low-water.	Height from low-water level to underside of girders.	Total weight of girders.	Cost of work to girder-level.			
					Feet.	Feet.	Feet.	Feet.	Tons.	Rs.			
5' 6" gauge— contd.	7 (c)—MADRAS (NORTH EAST LINE).	42	Penner (near Nellore)	20th Dec. 1898	{ 23 5	{ 70'00 40'00	1,990'00	8'59 to 40'40	39'58 to 42'17	911'75	3,91,961		
		43	Kistna (near Bezvada)	17th Mar. 1893 for coal traffic, and 1st Jan. 1894 for metre gauge traffic.	12	292'00						{ 3,736'00 outside and 3,684'00 inside abutments.	82
		44	Godavari (Havelock) (near Kovvur).	6th Aug. 1900	{ 56 1	{ 150'00 40'00	{ 3,000'00 between abutments. 9,086'00 over all.	48 to 100	34'75	7,668'00	...		
		45	Sutlej (near Ladhawal)	January 1870	(a) { 4 41 1 1	{ 71'00 99'00 99'67 96'67	5,131'00					28 to 42	20'79
		46	Beas (near Beas)	April 1869	{ 2 32	{ 120'00 100'00		3,828'00	45 to 70	20'00	1,660'00		
		47	Jumna (near Jagadhri)	January 1869	{ 22 2	{ 99'00 100'00	2,674'75					89 to 41	19'00
		48	Kaisar-i-Hind (over the Sutlej near Hussainiyala) (Ferozapore)	8th May 1887	27	144'50		4,293'00	78	21'00	6,000'00		
		9 (c)—NORTH WESTERN STATE.		49	Ravi as originally constructed	12th April 1875	33	90'00	3,217'00	75	20'00	1,419'00	9,50,202
					Ravi as reconstructed (near Shahdara).	15th July 1893	15	90'00	1,465'00	75	19'00	(c)1,381'00	...
				50	Alexandra (over the Chenab between Wazirabad and Kathala) as originally constructed	22nd Jan. 1876	64	133'50	9,089'00	75	20'00	5,248'00	24,08,756
	Alexandra as reconstructed			1st Nov. 1891	28	133'50	3,976'00	75	20'00	5,073'40	22,920		
51	Jhelum as originally constructed			Towards end of 1876.	50	90'00	4,874'00	30	20'75	2,150'00	6,90,137		
	Jhelum as reconstructed (near Jhelum).			20th Nov. 1895	{ 50 1 land span.	{ 90'00 18'50	4,899'42	30	22'68	2,475'00	1,79,770		
52	Attock (on the Indus near Attock).			24th May 1883	{ 2 3 2 land spans.	{ 296'25 246'25 40'00						1,522'00	(k)



## DIX 36—continued.

In Report for 1902.)

over, and costing not less than Rs. 6,00,000 each up to 31st December 1903—contd.

Appendix 36.  
Cost of bridges.

Graph 31 of Report.)

Total cost of girders.	Cost of protective works.	Total cost, including cost of protective works.	Cost per lineal foot, excluding protective works where separately stated.	Cost of erection of girders per ton.	Serial No. of bridges.	REMARKS.
Rs.	Rs.	Rs.	Rs.	Rs.		
1,83,921	54,663	6,30,545	816	30	42	
18,74,453	5,14,000	40,32,000	942	34	43	Rs. 25,211 since expended on account of repainting girders. The cost of approaches, Rs. 4,71,000, has not been entered.
—	—	47,14,849	518	22	44	
(c) 10,08,780	(d) 2,54,000	33,60,076	(e) 605	(g)	45	(a) Twelve spans have been removed. (b) Does not include weight of girders removed. (c) Does not include cost of girders removed. (d) Including cost to 1874, since which date a large amount of additional expenditure has been incurred. (e) Calculated as for the present length. (f) The contract rate for the construction of these three bridges, including protective works, was Rs. 428 per foot run of the bridges, and the figures as to cost are approximate only. (g) Contract included erection.
7,23,690	3,00,000	25,90,166	598	(g)	46	
5,70,180	2,00,000	15,34,600	499	(g)	47	
15,52,329	11,07,900	41,08,266	699	50	48	Carries the rails below and the roadway above.
5,01,641	1,50,472	16,02,815	451	(h) 125	49	(h) Originally carried the rails above and a footpath below. This has now been changed. (i) Including the road bridge (634 tons).
1,94,098	96,386	2,90,484	132	(j) 40		
19,94,271	9,40,336	53,38,863	484	121	50	The bridge has been reduced from 64 to 28 spans. The girders doubled, and new cross and rail girders put in. The track is carried between the girders and there are foot-paths on cantilevers outside. The cost of reconstruction only is shown against this entry. The bridge was not closed for traffic during reconstruction; all restrictions were removed on the 1st November 1891, and the bridge was thrown open for traffic as usual.
2,45,769	49,381	3,18,070	68	27		
9,40,487	81,249	17,11,872	335	124	51	Originally carried the rails above and a foot-path below. This has now been changed. The railway and road bridges are separate and run alongside one another on the same piers. Railway bridge has entirely new girders, the rails being carried above top booms. Road bridge has girders (taken from the old railway bridge) which carry on top booms a corrugated flooring 16 feet wide and a metalled roadway 14' 6" between guard timbers.
8,33,242	86,664	10,99,676	207	37		
15,96,980	1,45,956	32,20,016	2,020	437 252	52	Has the rails above and a military roadway below. (k) Pier No. 1.—All standards and struts founded at same level, viz., 343'68 or 21'68 feet above low-water level. Pier No. 2.—All standards and struts founded at same level, viz., 319'12 or 2'88 feet below low-water level. Pier No. 3.—Up-steam strut on east side of pier was founded at 311'83 or 10'12 feet below low-water level; all other standards and struts founded at same level, viz., 313'30 or 8'70 feet below low-water level. Pier No. 4.—Two main standards and one down-steam strut, all on west side of pier, were founded at 337'29 or 15'29 feet above low-water level; all other standards and struts founded at same level, viz., 343'29 or 21'29 feet above low-water level.

Appendix 36.  
Cost of bridges.

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(Appendix

Cost and particulars of the railway bridges in India of 1,000 feet length and

(Referred to in p

RAILWAY.	Serial No. of bridges.	NAME OF BRIDGE.	Date of opening.	No. of spans.	Span in clear.	Length of bridge.	Depth of foundation below low-water.	Height from low-water level to underside of girders.	Total weight of girders.	Cost of work to girder level.								
					Feet.	Feet.	Feet.	Feet.	Tons.	Rs.								
(5' 6" gauge)— concl'd.	53	Empress (over the Sutlej at Adamwahan)	8th June 1878	16	250'00	4,210'00	100	32'07	6,704'00	26,93,81								
	54	Victoria (over the Jhelum at Chak Nizam, Haranpur)	16th May 1887	17	135'00	2,720'00	82	19'00	2,988'00	7,73,41								
	55	Lansdowne (over the Indus at Sukkur)— Bohri channel . . . . . Sukkur channel . . . . .	27th Mar. 1889	1 1 1	790'00 270'00 230'00 90'00	900'00	None in river	51'00	3,292'00	2,88,32								
9 (a)— NORTH- WESTERN STATE— concl'd.	56	Sher Shah (over the Chenab near Chenab West bank)									1st Feb. 1890	17	200'00	3,650'00	75	29'00	3,740'00	10,84,45
	57	Indus (near Kotri)									25th May 1900	1 5	100'00 350'00	1,948'00	49 to 60	40'00	4,761'00	6,93,69
10 (c)— ODISH AND BHOJIPUR STATE.	58	Sohan . . . . .	1st April 1899	1 4 2	119'00 200'00 100'00	1,204'50	(d)	96'00	1,150'00	5,91,48								
	59	Gumti (near Jaunpur)	24th Dec. 1874	16	82'00	1,472'00	45 to 50	44'17	811'00	4,21,53								
	60	Ramganga (near Bareilly)	24th June 1874	1 31	55'00 56'00	2,277'90	85	25'77	943'24	4,50,62								
	61	Ganges (near Rajghat, Aligarh branch)	5th June 1874	1 38	72'00 58'00 80'00						3,040'00	55	24'39	1,050'00	3,78,99			
	62	Ganges (near Cawnpore)	15th July 1875	23 2	100'00 96'00 40'00	2,850'00	50 to 65	31'66	1,815'00	7,11,07								
	63	Ganges (near Balawali)	9th May 1887	11	249'50						2,886'00	100	37'94	3,944'00	10,16,43			
	64	Solani (near Landhaura)	1st Jan. 1886	11	149'58	1,749'50	60	16'75	1,563'00	4,03,18								
	65	Dufferin (over the Ganges at Benares (near Kashi)	1st Oct. 1887	7 9	331'00 103'00	3,507'41	25 to 141	75'32	6,780'00	18,04,40								
	66	Ramganga (near Moradabad)	8th June 1894	10	200'00	2,126'00	75 to 83	21'50	2,602'78	3,26,26								
	67	Ganges (near Garhmukhtesar)	11th April 1901	11	200'00	2,932'00	81	28'00	2,574'00	5,21,13								
(8' 3 1/2" gauge.) 11 (a)— ASSAM- BENGAL.	68	Barak (near Badarpur)	23rd April 1899	8 1 1 1	60'00 276'00 250'00 224'00	1,368'00	(f)	70'21	1,107'00	4,72,41								
	69	Major bridge No. 74, Dehing, at mile 307'57 from Gauhati.	11th May 1903	7	150'69	1,118'00	38'25	40'83	688'00	(k) 3,96,92								
12 (a)— BENGAL AND NORTH- WESTERN.	70	Rapti (near Jagat Bela)	15th June 1886	9	150'00	1,445'00	86	41'00	1,145'70	4,93,95								
	71	Elgin (over the Gogra river near Gograhat).	24th Dec. 1898	17	200'00	3,695'00	94	28'50	4,199'00	6,80,22								
	72	Turtipur (near Turtipur)	15th Jany. 1903	18	200'00	3,911'50	to bottom of well curbs. 78 average	47'50	3,689'00	(i) 9,77,29								
12 (c)— TIBHOOT.	73	Gandak (near Hajipur)	25th April 1887	8	250'00	2,176'00	40 to 90	40'46	2,495'00	6,07,13								
	74	Kosi (near Kursela)	26th June 1902	15	200'00	3,172'50	95	42'72	3,060'00	14,45,13								
15 (a)— BURMA	75	Gokteik viaduct . . . . .	1st June 1901	7 10 16	60'00 120'00 40'00	2,260'00	...	300'00	4,241'00	2,33,21								
	76	Teesta (near Teesta)	1st April 1901	13	150'00	2,116'40	60	27'27	1,704'30	3,97,057								
4 (c)— EASTERN BENGAL STATE.	77	Dherilla (near Gitaldaha)	2nd Jany. 1902	10	150'00	1,620'00	75 to 77	26'22	1,290'00	4,12,186								
	78	Sankosh (near Pateswari)	23rd Sept. 1902	9	150'00	1,458'00	85	33'08	1,165'59	3,90,079								
	79	Mahanady (near Barsoi)	1st July 1889	10	150'00	1,592'00	47'08 to 48'57	30'77	975'00	3,40,185								
3 (k)— RAJPUT- ANA- MALWA.	80	Jumna (near Agra Fort)	1st Jan. 1876	16 6	183'00 23'00	2,427'00	70	32'50	2,551'40	4,13,975								
	81	Nerbudda (near Mortakka)	5th Oct. 1876	14	183'00	(o) 2,836'00	14	80'00	2,362'00	9,39,407								
	82	Jumna (near Muttra Cantonment)	15th Dec. 1884	7	150'00	1,146'00	71	27'00	1,309'00	3,06,341								
21 (g)— SOUTHERN MAHARAJA.	83	Bhima (near Tadval)	1st Aug. 1884	14	150'00	2,342'00	18'50	58'77	1,680'00	3,33,256								
	84	Kistna (Bijapur branch) (near Sitimani).	1st Aug. 1884	21	150'00	3,392'00	18'00	43'17	2,498'00	3,43,345								
	85	Kistna (Poona branch) (near Kudohi).	2nd Feb. 1888	14	150'00	2,389'50	4'17	75'79	1,897'12	2,65,228								
	86	Hagari (near Hagari)	4th Oct. 1877	34	64'00	2,396'00	68'25	16'30	660'90	6,42,732								
21 (c)— GUNTAKAL- MYSORE FRONTIER.	87	Penner (near Khadarpett)	1st June 1892	11	150'00	1,740'00	21'00 to 55'00	18'71	1,077'00	2,89,774								

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over, and costing not less than Rs. 6,00,000 each up to the 31st December 1903—concl'd.

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Appendix 36.  
Cost of bridges.

Total cost of girders.	Cost of protective works.	Total cost including cost of protective works.	Cost per lineal foot, excluding protective works where separately stated.	Cost of erection of girders per ton.	Serial No. of bridges.	REMARKS.
Rs.	Rs.	Rs.	Rs.	Rs.		
28,96,558	(a) 20,06,246	71,01,689	1,210	105	53	Has a combined road and railway on the same level. (a) Including Rs. 1,98,055, cost of materials for temporary bridge.
8,02,104	8,78,326	19,48,811	(b) 579	(b) 66	54	Has a combined road and railway on the same level and a footway on each side, supported on wrought iron brackets, and provided with hand rails.
24,96,074	4,946	27,80,340	8,094	185	} 55	(b) Calculated on cost, which includes Rs. 18,000 on account of cost of staging.
8,77,912	...	5,57,880	899	110		Has a roadway on the same level as the rails, and a footway on each side, the roadway being formed of steel corrugated troughs fitted with teak scantlings.
10,83,528	6,66,120	28,34,101	594	56	56	Has a roadway on the same level as the rails, 15' wide between girders and 14' 6" headway at centre from rail-level to bottom of cross girders of top boom. The roadway consists of corrugated steel troughs fitted with deodar battens.
16,06,334	...	23,00,025	1,181	(c) 107	57	(c) Including staging erection, painting and share of service works; contingencies, plant and general charges.
8,32,098	8,547	9,27,132	767	65	58	(d) Pier No. 2 . . . . . 10' below low-water.
8,24,628	8,526	7,54,678	507	109	59	" " 3 . . . . . 43' " "
1,99,040	9,25,508	15,75,177	285	68	60	" " 4 . . . . . 48' " "
3,10,388	1,32,724	8,22,103	227	28	61	" " 5 . . . . . 53' " "
8,75,745	1,74,160	17,60,978	557	(e)	62	" " 6 . . . . . 20' " "
10,86,000	6,92,146	27,94,554	728	62	63	" " 1, 7 and 8 . . . . . above low-water.
3,99,277	2,20,091	10,22,550	458	10	64	
32,55,035	1,45,329	47,04,771	929	47	65	Has a roadway on the same level as the rails, and a footway on each side, supported on cantilevers outside the girders.
6,88,391	1,21,837	11,36,495	477	42	66	Has a roadway on the same level as the rails.
7,78,519	5,67,542	18,67,196	604	51	67	The permanent-way is laid on cross sleepers laid on trough foot plates, which are filled in with rammed kunkur and are used as a military road for guns, etc.
4,38,442	21,561	9,21,705	658	183	68	(f) South abutment 34'08. North abutment 35'00'. Pier 1; 72'33", Pier 2; 82'00'. Land spans above T. W. level 27'54'.
(v) 1,41,090	...	6,17,465	552	(m) 116'38	69	(k) This amount includes cost of ballast, plates, teakwood work, temporary bridge, diversion and contingencies, &c. (l) This amount represents, cost of girders, repairing carriage to site and petty iron work. (m) Includes painting.
(g) 3,29,522	6,34,665	(h) 14,58,143	570	65	70	(g) Including cost of erection of girders, Rs. 74,543. (h) Including Rs. 28,971, on account of protective works, Rapti bridge, incurred during 1894-95.
11,09,548	6,30,776	24,20,546	484	47	71	Has military blockhouses at either end and a roadway at rail-level which is being adapted o artillery.
10,95,259	(i)	20,72,495	529'84	31	72	(i) No special protection works, Rs. 3,046 cost of a guide bund and Rs. 2,635 cost of a spur and Rs. 1,05,944 cost of block kunkur protection round piers and abutments are included in the cost of work to girder-level.
7,29,506	48,244	(j) 13,84,883	614	61	73	Has a foot-way on each side, supported on wrought-iron brackets and provided with a hand rail. (j) Excluding cost of viaduct, Rs. 1,40,505.
7,35,165	23,24,335	45,04,628	687 24	62'21	74	
14,64,997	...	16,98,210	751	...	75	Height 320'.
4,20,941	6,87,826	15,05,824	386	53	76	
8,81,544	3,75,818	11,69,548	490	53	77	
3,30,861	3,51,012	10,71,952	494	67	78	
2,43,131	1,27,980	7,11,295	366	...	79	Cost of erection not known.
6,90,683	48,776	(n) 18,39,877	736	85	80	Lattice girders carrying the rails below and the carriage road above. This bridge is built for and carries the standard gauge. (n) Including some special items not separately detailed.
4,42,205	777	(p) 18,73,925	660	106	81	Triangulated girders designed to carry the rails above and a carriage road below. (o) Including two abutment spans. (p) Including some special items not separately detailed.
3,72,000	14,194	(q) 8,49,000	728	35	82	Has a combined road and a railway on the same level (q) Including some special items not separately detailed.
4,71,097	26,419	8,30,772	343	73	83	
7,48,444	47,852	11,39,641	322	84	84	
4,79,402	5,474	7,50,104	313	...	85	
1,21,173	...	7,68,905	319	...	86	
8,10,941	1,49,480	7,50,145	345	40'	87	

Appendix 37.  
Cost of tunnels.

APPEN

(Appendix 49

Cost and particulars of tunnels of 500 feet length and over and costing not less

(Referred to in para

RAILWAY AND GAUGE.	Serial No. of tunnels.	Name of tunnel.	Position of tunnel (nearest station).	Single or double line.	LENGTH.				TOTAL.	Total cost including tools and plant.
					Unlined.	½ lined.	¾ lined.	Complete-ly lined.		
					Feet.	Feet.	Feet.	Feet.	Feet.	Rs.
5' 6" gauge.) 2 (a) - BENGAL-NAGPUR. 5 (c) - EAST INDIAN. 8 (b) - GODHARA-BUT-LAM-NAGDA. 6 (c) - GREAT INDIAN PENINSULA.	1	Darekasa . . . . .	Darekasa . . . . .	Single . . . . .	735	...	...	...	735	1,82,984
	2	Saranda . . . . .	Goilkera . . . . .	Single . . . . .	838	...	1,258	...	1,641	8,86,964
	3	Bhortonk . . . . .	Khodri (Katni branch)	Single . . . . .	...	...	...	1,000	1,000	2,09,674
	4	Monghyr (a) . . . . .	Below Jamalpur . . . . .	Built for double line, but 2' too narrow.	434	...	...	466	900	No record
	5	Panchpipla . . . . .	Bajranggarh . . . . .	Single . . . . .	540	...	...	225	765	(b) 2,29,829
	6	Thull Ghat No. 2 . . . . .	Kasara . . . . .	Double . . . . .	...	...	1,625	...	1,625	3,90,394
	7	Thull Ghat No. 7 . . . . .	Igatpuri . . . . .	Double . . . . .	1,461	...	...	...	1,461	1,77,255
	8	Thull Ghat No. 8 . . . . .	Igatpuri . . . . .	Double . . . . .	1,247	...	...	...	1,247	1,52,325
	9	Bagra . . . . .	Bagra . . . . .	Double . . . . .	...	...	910	...	910	2,15,747
	10	Bhore Ghat No. 13 . . . . .	Thakurvadi . . . . .	Double . . . . .	1,305	...	...	...	1,305	1,73,649
	11	Bhote Ghat No. 23 . . . . .	Reversing station . . . . .	Double . . . . .	405	...	863	...	768	2,09,783
	12	Bhore Ghat No. 24 . . . . .	Reversing station . . . . .	Double . . . . .	975	...	48	...	1,023	1,50,352
	13	Sohawa No. 1 . . . . .	Sohawa . . . . .	Single . . . . .	...	...	538½	...	538½	(c) 1,67,629
	14	Margalla No. 3 . . . . .	Sarai Kala . . . . .	Single . . . . .	...	450	500	...	950	(c) 1,87,150
	15	Attock No. 4 . . . . .	Khairabad . . . . .	Single . . . . .	...	...	677½	...	677½	(c) 1,80,924
	16	Attock No. 5 . . . . .	Khairabad . . . . .	Single . . . . .	...	...	722	...	722	(c) 1,63,003
9 (a) - NORTH WEST BERN STATE. Main line.	17	Gundakinduff . . . . .	Midway between Babar Kachh and Kochali.	Single . . . . .	...	...	569½	...	569½	2,03,826
	18	Kochali, Lower . . . . .	Kochali . . . . .	Single . . . . .	...	...	506	...	506	1,84,061
	19	Karez No. 2 . . . . .	Dirgi . . . . .	Single . . . . .	2,034	...	...	...	2,034	4,41,963
		Karez . . . . .								
	20	Lower Chapper Arching . . . . .	Mangi . . . . .	Single . . . . .	...	...	592	...	592	1,62,657
21	Iron Gates . . . . .	Mangi . . . . .	Single . . . . .	1,227	...	...	...	1,227	3,12,679	
22	Mudgorge Arching . . . . .	Mudgorge . . . . .	Single . . . . .	...	...	1,087	...	1,087	4,12,344	
(Channar extension.)	23	Khojak No. 18 . . . . .	Shelabagh . . . . .	Double . . . . .	...	...	12,870	...	12,870	(d) 68,26,790
	24	No. 20 . . . . .	3½ miles below Shela-bagh.	Double . . . . .	...	...	756	...	756	2,24,027
	25	No. 23 . . . . .	6½ miles below Shela-bagh.	Double . . . . .	...	...	800	...	800	2,57,291

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in Report for 1902.)

than Rs. 1,50,000 each on the railways in India up to the 31st December 1903.

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Appendix 37.  
Cost of tunnels.

Cost per foot run.	Time taken to drive heading.	TIME TAKEN TO COMPLETE TUNNEL.		Serial No. of tunnels.	REMARKS GIVING NATURE OF GROUND PASSED THROUGH, ETC.
		From	To		
Rs.					
249	Not known	May 1879	6th Nov. 1893	1	All hard rock.
528	1 75 years	January 1888	Sept. 1892	2	Very hard slaty rock with a great deal of water.
310	1 00 year	14th March 1888	6th Dec. 1890	3	Gneiss interspersed with veins of quartz. The total cost excludes the cost of plant.
...	Not known	March 1856	June 1861	4	Quartz and slate. (a) A foot-path has been laid and fenced off through the tunnel.
300	0 68 year.	24th August 1892	7th April 1894	5	Northern 500 feet hard basalt; southern 265 feet hard rock, but composed of boulders liable to fall. This part has been lined. (b) Including Rs. 17,000 for machinery.
240	4 75 years	February 1858	March 1864	6	Loose rock.
121	4 08 years	March 1859	May 1864	7	} Rock.
122	5 08 years	July 1859	August 1864	8	
237	...	About 6	years	9	Hard rock with fissures.
133	5 08 years	October 1856	December 1862	10	} Trap rock.
273	4 00 years	August 1856	February 1862	11	
147	3 75 years	January 1857	March 1861	12	
(c) 311	0 50 year	November 1878	15th March 1880	13	Bed clay and sandstone. War prices were paid owing to the Afghan war. Common coolies were paid 8 annas per day. The heading was got through in six months, and the work was then left quite in abeyance, pending further orders, till September 1879; otherwise the whole would have been complete within a year.
(c) 197	0 54 year	4th April 1881	15th Aug. 1882	14	Nummulitic limestone shaken with clay seams.
(c) 267	...	Not recorded		15	Treacherous shale.
(c) 226	...	Not recorded		16	Treacherous shale. (c) The charges do not include tools and establishment, for which an addition of, say, 15 to 20 per cent should be made to the figures given. Cost of faces is included. Probably charges for timber, etc., have not been exactly distributed; a safe rate for a completely lined tunnel would apparently be about Rs. 230 per foot.
367	...	1884	1886	17	Sandstone in hard and soft beds.
364	...	1884	1886	18	Soft sandstone with beds of soft earth.
217	...	...	...	19	Hard limestone.
275	...	...	...	20	Gravel with red clay.
255	...	...	...	21	Hard limestone.
379	...	...	...	22	Middle eocene gypsiferous deposits. This was originally intended to be an open cutting, but owing to the constant slips, etc., it was eventually covered in.
530	2 01 years	13th April 1889	September 1891	23	Lining practically completed on the 31st October 1894. Water bearing shales and layers of soft mud. The tunnel has been three-quarters lined throughout. (d) The cost of tunnel is Rs. 66,00,513, that of lining, Rs. 2,25,601, and that of capital establishment, Rs. 671.
293	0 34 year	December 1888	June 1890	24	Hard and soft shales with beds of mud. This is a cut and cover on 902 ft. radius.
322	0 44 year	April 1889	November 1890	25	Through soft and hard water bearing shales on 819 ft. radius.

Appendix 37.  
Cost of tunnels.

APPEN

(Appendix 49

Cost and particulars of tunnels of 500 feet length and over and costing not less than

(Referred to in para

RAILWAY AND GAUGE.	Serial No. of tunnels.	Name of tunnel.	Position of tunnel (nearest station).	Single or double line.	LENGTH.				TOTAL.	Total cost, including tools and plant.		
					Unlined.	3 lined.	4 lined.	Completely lined.				
					Feet.	Feet.	Feet.	Feet.	Feet.	Rs.		
(5' 6" gauge—concl'd.) 9 (a)—NORTH WESTERN STATE—concl'd.	(Mushkaf-Dolan section.)	26	No. 2	Mushkaf	Double	...	...	650	...	650	1,70,662	
		27	No. 7	Ocepur	Double	...	528	211	...	739	2,16,787	
		28	Panir No. 9	Panir	Double	...	523	2,695	...	3,218	13,81,710	
		29	Sestel No. 12	Peshi	Double	...	...	1,035	...	1,035	2,96,510	
		30	Cascade No. 14	Dozan	Double	...	189	358	...	547	1,66,830	
		31	No. 1	Jhalar	Single	101	...	...	1,076	1,180	2,49,142	
	32	" 2	Single		...	...	...	854	854	1,81,423		
	33	" 3	Single		104	...	...	1,671	1,775	3,41,143		
	34	" 4	Single		238	...	...	842	1,130	2,01,614		
	35	" 5	Single		...	...	...	1,614	1,614	3,91,054		
	36	" 6	Single		...	...	...	1,897	1,897	3,85,807		
	(3' 3 3/4" gauge.)	(Marri-Attock section.)	37	" 9	Chhab	Single	...	...	...	1,300	1,300	2,60,793
			38	No. 1 (Division 8, Section II).	Between Bihar and Damchara.	Single	...	...	...	671	671	3,61,414
			39	No. 2 (Division 9, Section II).	Between Harangajao and Jatinga.	Single	...	...	...	596	596	2,83,623
			40	No. 5 (Division 9, Section II).		Single	...	...	...	824	824	4,23,529
			41	No. 7 (Division 9, Section II)		Single	...	...	...	845	845	4,20,664
			42	No. 10 (Division 9, Section II).	Between Haflong and Mahur.	Single	...	Flying arch. 295	31	210	526	2,53,756
			43	Mahur No. 1 (Division 10, Section II).	Between Mahur and Maibang.	Single	...	...	...	1,923	1,923	13,00,000
			44	No. 2 (Division 10, Section II).		Single	...	...	...	518	518	3,16,192
			45	No. 4 (Division 10, Section II).		Single	...	...	...	860	860	5,34,775
			46	Dyakh No. 2 (Division 11, Section II).	Between Maibang and Langting.	Single	...	...	...	744	744	2,77,533
	21 (a)—SOUTHERN WEST OF INDIA MAHARATTA.		47	Castle Rock	Castle Rock	Double	...	...	...	1,242	1,242	9,08,615
			48	No. 2	Alandi	Single	630	...	...	...	630	1,53,963
			49	Nandicanama	Chelama	Single	...	...	...	1,527	1,527	4,41,418
	21 (b)—WEST OF INDIA PORTUGUESE.		50	No. 1	About 3 1/4 miles below Dudh Sagar.	Double	422 1/2	...	81 1/2	...	504	1,75,629
			51	No. 5	Dudh Sagar	Double	561	39	65	...	665	1,81,872
			52	No. 10	About 2 1/4 miles above Dudh Sagar.	Double	772	70	...	...	842	1,54,512
	(2' 6" gauge.)	28—KALKA-SIMLA.	53	Koti No. 1	Koti	Single	...	...	...	2,280	2,280	3,99,657
			54	Barog	Barog	Single	...	...	...	3,752	3,752	8,17,980
			55	Taradevi No. 1	Taradevi	Single	...	...	...	1,598	1,598	2,61,217
			56	Inverarm	Simla	Single	...	...	...	1,125	1,125	1,82,987

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Appendix 37.  
Cost of tunnels.

in Report for 1902.)

Rs. 1,50,000 each on the railways in India up to the 31st December 1903—concl.

graph 31 of Report.)

Cost per foot run.	Time taken to drive heading.	TIME TAKEN TO COMPLETE TUNNEL.		Serial No. of tunnels.	REMARKS GIVING NATURE OF GROUND PASSED THROUGH, ETC.
		From	To		
Rs.					
203	0'25 year . .	October 1893 . .	June 1895 . .	26	Through clay and sandstone bands on the straight.
208	0'25 year . .	November 1893 . .	March 1895 . .	27	Through conglomerate: 854 feet on 4° curve and the rest straight.
208	0'81 year . .	November 1892 . .	May 1895 . .	28	Through nummulitic limestone of varying degrees of hardness on the straight.
286	0'63 year . .	March 1893 . .	September 1895 . .	29	Through clay and conglomerate bands: 1,000 feet straight and the rest on 3° curve.
308	0'37 year . .	August 1892 . .	November 1894 . .	30	Through hard limestone on the straight.
211	2 years . .	1891 . .	1897 . .	31	} Lime and sandstone; also shale.
212	2 years . .	1891 . .	1896 . .	32	
192	2 years . .	1891 . .	1897 . .	33	
178	2 years . .	1891 . .	1896 . .	34	
180	2 years . .	1891 . .	1897 . .	35	
193	2 years . .	1891 . .	1897 . .	36	
201	2 years . .	1896 . .	1898 . .	37	
539	0'67 year . .	1st January 1895 . .	December 1898 . .	38	Through hard sand interspersed with shale with occasional seams of clayey ground and laterite. The tunnel is timbered on the English system with 4 to 6 drawing bars.
476	Average 4' per day.	March 1894 . .	June 1901 . .	39	Blue shale and very wet in places.
514	Average 4' per day.	May 1897 . .	October 1901 . .	40	Blue shale except a short length through old river bed with boulders.
498	Average 4' per day.	March 1896 . .	March 1903 . .	41	In blue shale about ½, inner wet and heavy ground.
482	Average 4' per day.	August 1897 . .	March 1903 . .	42	Through shaly sandstone.
676	Average 4' per day.	March 1897 . .	September 1903 . .	43	Through dash shale with kaolinite beds.
610	Average 4' per day.	March 1900 . .	July 1903 . .	44	Through dash shale with kaolinite beds.
622	Average 4' per day.	January 1898 . .	November 1903 . .	45	Shale and broken sandstone.
373	Average 4' per day.	September 1897 . .	September 1901 . .	46	Sandstone and hard sand.
732	About 3 years . .	April 1883 . .	October 1889 . .	47	Loam.
244	About 2 years . .	1884 . .	1886 . .	48	Black trap rock.
289	About 2½ years . .	1884 . .	1890 . .	49	Limestone rock.
348	1'33 years . .	March 1884 . .	November 1886 . .	50	
274	1'17 years . .	May 1885 . .	April 1887 . .	51	Black trap and granite gneiss.
184	1'41 years . .	January 1885 . .	April 1887 . .	52	Hard granite rock.
175	1½ years . .	8th May 1900 . .	October 1903 . .	53	Red clay and shale.
Not yet completed.	2½ years . .	15th July 1900 . .	Not yet complete	54	Fissured sandstone.
168	1½ years . .	3rd May 1901 . .	September 1903 . .	55	Micaceous schist.
163	½ year . .	15th February 1902 . .	September 1903 . .	56	Chloritic shale and stone.



Appendix 38.

APPENDIX 38.

Index.

History of open lines of railways, and of lines under construction or sanctioned for commencement, on the 31st December 1903.

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Note.—For particulars relating to railways under survey or projected, see the "Histories of Railway Projects reported up to the 30th June" each year, which is issued as a separate publication by the Government.

## APPENDIX 38.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 1</sup> <sub>Sub-head (a)</sub> **BENGAL CENTRAL RAILWAY (5 6" gauge)—**

The line was worked for the Bengal Central Railway Company by the Eastern Bengal Guaranteed Railway Company from the 16th October 1882 to the 30th June 1884 and by the Eastern Bengal State Railway Administration until the 1st January 1897, on which latter date the Company took over the working.

	Open line. Miles.	Under construction. Miles. Nil.
Mileage . . . . .	125'01	
Running powers—		
<i>Home line over Foreign line:—</i>		Miles.
Dum Dum Junction to Canal Junction, Eastern Bengal State railway . . . . .		1'61
Canal Junction to Calcutta " " " " . . . . .		2'96
Canal Junction to Chitpore " " " " . . . . .		2'00
Calcutta to Kidderpore Docks " " " " . . . . .		7'31
		<u>13'88</u>

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<i>Main line—</i>			Miles.	Miles.		Miles.
Dum-Dum Junction to Dattapukur . . . . .	Mar. 1881	2-4-83 7-12-83 22-4-84 16-2-84	14'25	104'51	1882	20
Dattapukur to Gobardanga . . . . .			17'00		1883	52
Gobardanga to Bongong . . . . .			12'00		1884 to 1903	125
Bongong to Khoolna . . . . .			61'26			
Total main line . . . . .	...	...	...	104'51		
<i>Branch—</i>						
Ranaghat to Bongong . . . . .	Mar. 1881	16-10-82	20'50	20'50		
Total branch . . . . .	...	...	...	20'50		
<b>GRAND TOTAL</b> . . . . .	...	...	...	125'01		

## Details of construction—

*Permanent-way.*—The permanent-way consists of flat-footed steel rails, 62 lbs to the yard, laid on creosoted pine sleepers. Sal sleepers are now being used for renewals and have already been put in at the rail-joints on all curves and in some cases also at the middle of each pair of rails.

*Ballast.*—The main line between Dum Dum Junction and Khoolna is brick ballasted; the branch line from Ranaghat to Bongong is sand ballasted, brick ballast being used only at bridges, level-crossings, curves and in a few short lengths where the soil is bad.

*Fencing.*—The line is fenced throughout. Iron gates are provided at level-crossings.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 400.

## Terms of contracts—

The railway is worked under the following contracts:—

*Contracts of—*26th July 1881.—Bengal Central Railway Company's principal contract with the Secretary of State.

5th January 1887.—Contract with the Secretary of State for the construction and working of the Bengal Central railway and for future extensions.

The general conditions of the contracts are as follows:—

*Government aid.*—Government guarantee interest at 3½ per cent. in sterling on the Company's share capital. Land was provided free of charge.

*Currency of contracts.*—The contracts may remain in force until the 31st December 1980. Government may, however, determine them on the 30th June 1905 or any succeeding 10th year on twelve months' notice, or on six months' notice at any time if the Company fail to observe their obligations, or the line is worked at a loss. On the determination of the contract by efflux of time or by notice, the Government are to pay the Company the amount of the par value of the share capital paid to Government.

*Power of Company to surrender contracts.*—Nil.

*Terms of working.*—After deducting working expenses (which may include any single item of capital expenditure not exceeding Rs. 1,000 classed as a 'Minor Work,' subject to a maximum charge on such account of Rs. 20 per mile of line open in each half year, and a payment of Rs. 40 for every mile of line open to traffic to be made half-yearly to Government for supervision), the net earnings, after providing for repayment to Government of interest (if any) on moneys that may be raised by debentures in excess of the original capital of £1,000,000, are divided in proportion of three-fourths to the Secretary of State and one-fourth to the Company; the proportion due to the Secretary of State being applied towards meeting the guaranteed interest.

*Rates and fares.*—Certain maxima and minima have been fixed within which the Company are permitted to vary rates.

Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of Railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 1</sup> <sub>Sub-head (a)</sub> BENGAL CENTRAL RAILWAY (5' 6" gauge)—concl'd.

Statistics of working—

TABLE I.							TABLE II.		
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage on Capital outlay.	Interest.	Company's share of net traffic receipts.	Gain or loss to the State.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	
1881	10,51,983	...	...	...	51,616	...	-51,616	...	...
1882	46,33,355	...	...	...	1,95,584	...	-1,85,584	...	...
1883	79,36,235	1,07,954	-39,390	...	3,17,449	...	-3,56,839	64	186.50
1884	90,54,719	4,54,837	-1,19,682	...	3,62,189	...	-4,81,871	76	126.31
1885	90,04,061	5,35,353	8,233	0.09	3,60,162	...	-3,51,929	82	93.46
1886	89,65,705	5,67,343	-42,528	...	3,75,210	...	-4,17,738	87	102.70
1887	91,09,422	6,48,494	-7,923	...	4,60,840	...	-4,68,768	100	101.22
1888	92,53,170	7,12,901	1,58,145	1.71	5,19,942	...	-3,61,797	110	77.82
1889	94,46,671	7,37,191	2,95,938	3.13	5,18,693	...	-2,22,705	113	59.85
1890	96,88,212	6,67,804	2,45,907	2.54	4,39,982	53,992	-2,53,047	103	63.18
1891	99,44,845	8,11,666	3,27,736	3.30	4,72,482	73,429	-2,18,175	125	59.62
1892	1,00,65,784	7,69,347	3,12,903	3.11	5,30,251	74,600	-2,91,948	118	59.33
1893	1,00,83,983	7,83,529	3,14,992	3.12	5,37,007	79,647	-3,01,662	121	60.80
1894	1,01,41,094	8,20,179	2,41,182	2.37	6,11,415	...	-3,70,233	126	60.92
1895	1,01,77,466	9,47,391	3,98,809	3.92	6,08,944	85,023	-2,95,158	146	57.90
1896	1,06,38,927	9,33,266	3,44,465	3.20	5,69,175	91,908	-3,16,016	144	62.85
1897	1,17,36,810	11,33,199	5,16,922	4.40	5,36,909	95,271	-1,15,158	175	56.98
1898	1,23,58,300	10,24,657	3,68,008	2.98	5,19,231	1,20,642	-2,71,865	158	64.08
1899	1,26,78,629	11,39,689	4,41,813	3.48	5,07,035	97,581	-1,62,803	153	61.23
1900	1,26,96,415	13,33,419	5,50,699	4.34	5,04,985	1,24,611	-78,997	185	58.70
1901	1,29,54,075	14,05,248	6,42,940	4.96	5,08,291	1,46,144	-11,495	194	54.25
1902	1,31,11,415	13,17,214	5,73,918	4.38	5,11,298	1,53,667	-91,047	182	56.43
1903	1,31,88,948	15,08,506	5,07,425	3.85	5,15,051	1,21,830	-1,29,456	209	66.38

Number <sup>Main head 2</sup> <sub>Sub-heads (a) to (e)</sub> BENGAL-NAGPUR RAILWAY SYSTEM—

Lines comprising system.—The Bengal-Nagpur railway system is made up of—

	Open line.	Under construction.	Total.
	Miles.	Miles.	Miles.
(a) Bengal-Nagpur railway (5' 6" gauge)	1,370.53	43.32	1,413.85
(a) East Coast State railway, Northern section* (5' 6" gauge)	311.93	...	311.93
(b) Jubbulpore-Gondia extension, Bengal-Nagpur railway (2' 6" gauge)	76.95	178.17	255.12
(c) Parlakimedi Light railway (2' 6" gauge)	24.62	...	24.62
(d) Raipur-Dhamtari branch, Bengal-Nagpur railway (2' 6" gauge)	56.24	...	56.24
(e) Moharbhaj (2' 6" gauge)	...	32.10	32.10
<b>Total</b>	<b>1,840.27</b>	<b>253.59</b>	<b>2,093.86</b>

Running powers—

Home line over Foreign lines:—

	Miles.
At Katni, East Indian railway	0.30
At Asansol " " "	0.50
At Howrah " " "	1.00
At Nagpur, Great Indian Peninsula railway	0.65
Waltair to Vizagapatam including wharf and swamp lines, Southern section, East Coast State railway	4.97
<b>Total</b>	<b>7.42</b>

Foreign line over Home line:—

Great Indian Peninsula railway at Katni	1.60
---	------

2 (a) Bengal-Nagpur railway proper (5' 6" gauge.)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<b>BENGAL-NAGPUR PROPER—</b>						
<i>Main line—</i>						
Asansol to Damoodur		12-6-89	5.70			
Damoodur to Purulia		14-12-89	41.72			
Purulia to Chakardharpore		22-1-90	72.25			
Chakardharpore to Goilkera		15-5-90	21.06			
Goilkera to Jharsuguda		1-2-91	105.09		1890	53
Jharsuguda to Raigarh		20-4-90	44.35			
Raigarh to Bilaspur		10-2-90	81.90		1891	98
Bilaspur to Raipur		10-1-89	68.35			
Raipur to Rajnandgaon		4-12-88	41.99		1892	149
Rajnandgaon to Nagpur		1878 and '81†	144.88		1893	149
<b>Total main line</b>				626.69		
<i>Branches—</i>						
<i>Sanctoria coal branch—</i>						
Damoodur to the Sanctoria collieries		12-9-84	7.03		1894	149
<i>Chaurashi branch</i>						
		17-7-01	8.16		1895	149
<b>Carried over</b>			15.19	626.69		

\* Transferred for working as an integral part of the Bengal-Nagpur railway from the 1st January 1901.

† These are the dates of sanction and opening of the original metre gauge line, which was converted to the 5' 6" gauge and re-opened on that gauge on the 27th November 1888.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

History of railways constructed and in progress.  
[For Index see page 168.]

Number <sup>Main head 2</sup> <sub>Sub-heads (a) to (e)</sub> **BENGAL-NAGPUR RAILWAY SYSTEM—contd.**  
2 (a) Bengal-Nagpur railway proper (5' 6" gauge)—contd.  
Progress in opening—conold.

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<i>Branches—conold.</i>			Miles.	Miles.		
<i>Sambalpur branch—</i>			15'19	626'69		
Jharsuguda to Sambalpur . . . . .	July 1891	1-2-93	30'23		Bengal-Nagpur proper.	
<i>Katni branch—</i>						
Bilaspur to Birsinghpur . . . . .	12-9-84 Sept. 1884	1-2-91	142'60		1886	166
Birsinghpur to Umaria . . . . .		11-5-90	18'48		1887	166
Umaria to Katni . . . . .		2-11-86	35'88		1888	225
Katni-Murwara junction line . . . . .	...	...	1'98		1889	348
			193'94			
<i>Calcutta extension—</i>						
Sini to Khargpur . . . . .	August 1895	1-6-98	99'00		1890	534
Khargpur to Khal Bridge . . . . .		17-12-98	34'30		1891	831
Khal Bridge to Bajapur Khal . . . . .		24-5-00	18'80		1892	881
Bajapur Khal to Howrah . . . . .		14-12-00	17'00		1893	862
			169'10		1894	861
Santtagachi to Shelimar . . . . .	August 1895	15-3-01	2'18		1895	861
Hooghly foreshore to Kidderpore Docks . . . . .		10-4-01	0'60		1896	861
			2'78		1897	861
<i>Cuttack extension—</i>						
Kharpur to Balasore . . . . .	January 1899	17-12-98	71'25		1898	1,067
Balasore to Barang (Cuttack) . . . . .		10-1-99	116'75		1899	1,190
			188'00		1900	1,226
<i>Midnapore extension—</i>						
Khargpur to Cossye river . . . . .	January 1899	20-12-99	4'75		1901	1,234
Right bank of the Cossye river to Midnapore . . . . .		8-6-01	3'00		1902	1,234
			7'75		1903	1,370
<i>Midnapore-Jherriah extension—</i>						
Midnapore to Bhojudih . . . . .	1-6-01	1-2-03	114'50			
Bhojudih to Bhaga . . . . .	9-12-01	20-4-03	6'66			
Bhaga to Malkera . . . . .		1-9-03	8'79			
Bhowra branch . . . . .	1-11-01	14-5-03	1'95			
			131'90			
Total branches . . . . .	...	...	...	743'84		
TOTAL OPEN MILEAGE, BENGAL-NAGPUR PROPER . . . . .	...	...	...	1,370'53		
<b>EAST COAST STATE RAILWAY, NORTHERN SECTION—</b>						
<i>Main line—</i>						
Cuttack Road (Barang) to Bhubaneswar . . . . .	July 1890	1-2-97	10'32		East Coast State railway, Northern section.	
Bhubaneswar to Khurda Road . . . . .		20-7-96	11'76			1893
Khurda Road to Rambha . . . . .		1-3-96	61'54			1894
Rambha to Berhampur-Ganjam . . . . .		1-9-95	29'56			1895
Berhampur-Ganjam to Palasa . . . . .		1-4-95	45'76			1896
Palasa to Parlakimedi Road (Naupada) . . . . .		17-12-94	33'11			1897
Parlakimedi Road (Naupada) to Vizianagram . . . . .		20-7-94	55'20			1898
Vizianagram to Waltair . . . . .		15-7-93	37'50			1899
			284'75	1900		
<i>Puri branch—</i>						
Khurda Road to Puri . . . . .	July 1895	1-2-97	25'34		1901	319
Temporary Puri station to new Puri station . . . . .		1-6-98	1'84		1902	312
			27'18		1903	312
Total branch . . . . .	...	...	...	311'93		
TOTAL EAST COAST STATE RAILWAY, NORTHERN SECTION . . . . .	...	...	...	1,682'46		
TOTAL OPEN MILEAGE, BENGAL-NAGPUR RAILWAY, 5' 6" GAUGE . . . . .	...	...	...	1,725'78		
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>						
<b>BENGAL-NAGPUR RAILWAY, 5' 6" GAUGE.</b>						
Bauria to Fort Gloster . . . . .	25-6-00	12-2-04	2'00			
Bhojudih to Hariharpur . . . . .	11-1-01	...	26'96			
Malkera to Mohuda . . . . .		...	3'40			
Aidih branch . . . . .	20-12-02	...	2'47			
<i>Colliery lines—</i>						
Bhojudih to Parthadihi . . . . .	1-11-01	...	2'28			
Southern half of the Malkera-Katrasgarh cross connection . . . . .		...	0'71			
<i>Jamadhoba branch—</i>						
Jamadhoba to Balliary . . . . .	24-6-03	...	5'50			
Total lines under construction . . . . .	...	...	...	43'32		
GRAND TOTAL, BENGAL-NAGPUR, 5' 6" GAUGE . . . . .	...	...	...	1,725'78		
<b>DOUBLE LINE—</b>						
<b>BENGAL-NAGPUR RAILWAY, 5' 6" GAUGE—</b>						
Howrah to Santtagachi . . . . .	...	14-12-00	3'42			
Santtagachi to Bauria . . . . .	...	17-6-02	10'80			
Shalimar branch . . . . .	...	...	2'18			
Total double line . . . . .	...	...	16'35			

\* Included with the Madras railway, North-East line (the southern section of the East Coast State railway).

Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number Main head 2 **BENGAL-NAGPUR RAILWAY SYSTEM—*contd.***  
Sub-heads (a) to (e)

2 (a) Bengal-Nagpur railway proper (5' 6" gauge)—*contd.*

Details of construction—

**Permanent-way.**—The Sini-Calcutta-Cuttack section is laid with 85 lb. steel rails on cast iron pot sleepers. The Cuttack-Waltair section is laid with 75 lb. flat-footed steel rails with 5-holed fish-plates on wooden and steel pea-pod sleepers. On the main line the rails are 75 lb. steel, flat-footed, 30 feet long, laid on 10 transverse steel sleepers and two wooden sleepers per rail, except between Nagpur and Kamptee, where 12 steel sleepers per rail are used. On the Bilaspur-Umaria section, 75 lb. flat-footed steel rails are laid on 10 transverse steel sleepers and 2 sal sleepers at the joints, except between Khongsara and Khodri, where steel sleepers 10 to the rail, are used. The Sambalpur branch is laid with the same type of permanent-way as on the main line, but no sal sleepers have been added at rail joints. The Umaria-Katni section was originally laid with second-hand East Indian railway permanent-way on timber sleepers (82 lb. rails on three-fourths of the distance and 74 lb. rails on the remainder), but is now relaid with 75 lb. flat-footed rails on transverse steel sleepers.

**Ballast.**—The line is ballasted throughout with good stone, except for a few miles on the Chakardbarpur district, where laterite is used.

**Tunnels.**—See Appendix 37.

**Bridges.**—See Appendix 36.

**Fencing.**—The line is unfenced except between Nagpur and Kamptee and at the more important stations, and at some of the station yards and first class level crossings on the Barang-Waltair section. The question of fencing the main line is under consideration.

**Curves.**—On the main line there are no curves sharper than 1,000 feet radius. On the Sanctoria Coal branch, there is only one curve with a radius of less than 1,000 feet, the length of which is 0.28 mile and radius 800 feet.

**Gradients.**—The ruling gradient between Asansol and Nagpur, and Bilaspur and Katni is 1 in 100; between Sini and Khargpur, 1 in 125; between Khargpur and Waltair, 1 in 150; between Khargpur and Howrah, and Khurda Road and Puri, 1 in 200; and between Midnapore and Bhojudib, 1 in 200 in the down direction, and 1 in 125 in the up direction.

**Terms of contracts.**—

The Bengal-Nagpur railway is worked under the following contracts—

**Contracts of—**9th March 1887, Bengal-Nagpur Railway Company's principal contract.

31st December 1891.—Contract for the construction and working of a branch line from Jharsuguda (Sambalpur Road) station on the main line to Sambalpur.

27th June 1901.—As to the raising of debenture capital for the construction of the Sini-Midnapore-Howrah and Midnapore-Cuttack extensions

23rd January 1902.—Contract for the construction and working of the Raipur-Dhamtari (2' 6" gauge) feeder line with a branch to Rajim; an extension (5' 6" gauge) from Sini *via* Midnapore to Howrah, with branches from Midnapore to Cuttack and the Jherriah coal-fields; a line (2' 6" gauge) from Gondia to Jubbulpore with branches from Nainpur to Mandla, Nainpur to Seoni and Seoni to Chindwara; and for the working of the Northern section of the East Coast State railway as part of the undertaking.

The general conditions of the contracts are as follows :—

**Government aid.**—Government guarantee interest in sterling at 4 per cent. per annum on £3,000,000 share capital; on any further capital that may be required, the guarantee to be 4 per cent. or such other rate as may be agreed upon.

**Terms of contracts.**—The contracts provide for the Company raising £3,000,000; any further money required being either provided by the Secretary of State upon such terms as may from time to time be mutually agreed upon, or by the Company within such periods and in such instalments as the Secretary of State may prescribe. Subject to the provisions of the contracts, all moneys raised by the Company become the absolute property of the Secretary of State.

**Currency of contracts :—**

(1) **Principal contract.**—Government may determine the contract, by giving twelve months' previous notice, on the 31st December 1913, or on the 31st December of any succeeding tenth year. Government may also terminate the contract at any time, on six months' notice, if the Company fail to fulfil their obligations, or the line be worked at a loss. On the termination of the contract, the Company are to hand over to Government the railway and all its belongings of every description, and Government are to repay the amount at par of the share capital which has been paid in by the Company.

(2) **Sambalpur branch contract.**—The contract for this branch brings it within the provisions of the original contract of 9th March 1887, but provides that the Government may purchase the branch at any time after 1st January 1895, on giving twelve months' notice.

(3) **Contract of 23rd January 1902 : Northern section, East Coast State railway.**—Government may at any time, by giving six months' previous notice, require the Company to retransfer the whole or any part of the section of railway between Vizianagram and Waltair Junction with all appurtenances and without compensation in respect of such retransfer.

**Power of Company to surrender contract.**—Nil.

**Terms of working.**—After deducting working expenses (which may include any single item of capital expenditure up to Rs. 1,000 and not exceeding Rs. 2,000 at the discretion of the Consulting Engineer, classed as a "Minor Work," subject to a maximum charge on such account of Rs. 20 per mile of the open system in each half-year, and a payment of Rs. 40 for every mile of line open to traffic to be made half-yearly to Government for supervision) three parts of the surplus profits for any complete calendar year, after providing for payment to Government of interest on advances of capital made by them to the Company and for repayment of the interest paid by them to the Company for

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 2</sup> <sub>Sub-heads (a) to (e)</sub> BENGAL-NAGPUR RAILWAY SYSTEM—contd.

## 2 (a) Bengal-Nagpur railway proper (5' 6" gauge)—contd.

## Terms of contracts—concl'd.

that year, to be retained by Government, and the remaining fourth part to be divided between the Company and Government in the proportion which the gross earnings of the Company's undertaking, exclusive of the Northern section of the East Coast State railway, bear to the gross earnings of the latter section.

*Rates and fares.*—Certain maxima and minima have been fixed within which the Company are permitted to vary rates. The Madras Railway Company have the power to quote through rates in the direction of Madras from Bengal-Nagpur stations between Cuttack and Waltair. The Bengal-Nagpur Railway Company have similarly power to quote rates from Madras railway stations, Tadepalli and Cuttack, in the direction of Calcutta.

Statistics of working—See page 174.

## 2 (b) Jubbulpore-Gondia extension, Bengal-Nagpur railway (2' 6" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<i>Main line—</i> Nainpur to Gondia . . . . .	23-1-01	18-4-03	76-95		1903	77
Total open mileage. . . . .	...	...	...	76-95		
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>						
<i>Main line—</i> Jubbulpore to Nainpur . . . . .	33-1-01	†1-11-04	68-01			
<i>Branches—</i> Nainpur to Mandla . . . . .	23-1-01	...	*22-67			
Nainpur to Seoni . . . . .		12-2-04	47-26			
Seoni to Chindwara . . . . .		†1-11-04	40-23			
Total lines under construction . . . . .	...	...	...	178-17		
GRAND TOTAL . . . . .	...	...	...	255-12		

## Details of construction—

The greater part of this railway is still under construction.

## Terms of contracts—

The line is an integral part of the Bengal-Nagpur railway and is worked under the contracts relating to that railway.

Statistics of working—See page 174.

## 2 (d) Raipur-Dhamtari branch, Bengal-Nagpur railway (2' 6" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.*	Mileage.	Total.
<i>Main line—</i> Raipur to Kurud . . . . .	3-5-07	10-9-00	31-50	
Kurud to Dhamtari . . . . .		17-12-00	14-24	
Total main line . . . . .	...	...	...	45-74
<i>Branch—</i> Abhanpur to Rajim . . . . .	...	15-10-00	10-50	10-50
GRAND TOTAL . . . . .	...	...	...	56-24

## Details of construction—

*Permanent-way.*—The line is laid with 81 lb. flat-footed steel rails on sal sleepers.

*Ballast.*—Moorum or sand and stone in a few cuttings.

*Fencing.*—The line is unfenced.

*Curves.*—There are five curves of less than 1,000 feet radius aggregating 12 miles in length.

*Gradients.*—The ruling gradient of the line is 1 in 200.

## Terms of contracts—

The line is an integral part of the Bengal-Nagpur railway and is worked under the contracts relating to that railway.

Statistics of working—See page 174.

\* Work not yet commenced.  
† Probable date of opening.

Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 168.]

Number Main head 2 Sub-heads (a) to (c) **BENGAL-NAGPUR RAILWAY SYSTEM—contd.**  
Statistics of working—

Calendar year.	TABLE I. (BENGAL-NAGPUR RAILWAY INCLUDING THE NORTHERN SECTION OF THE EAST COAST STATE RAILWAY; RAIPUR-DHAMTARI BRANCH AND THE JUBBULPORE-GONDIA EXTENSION.)								TABLE II.							
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage on Capital outlay.	Interest.	Company's share of net traffic receipts.	Gain or loss to the State.	Nagpur-Chattisgarh, 3' 8 1/2".		Katni-Umaria, 5' 6".		(a) Bengal-Nagpur, 5' 6".		(b) Raipur-Dhamtari branch and Jubbulpore-Gondia extension, 2' 6".		
								Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	
Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.		Rs.		Rs.		Rs.			
1879	28,62,990	...	...	...	83,911	...	-83,911	...	...	...	...	...	...	...	...	
1880	55,49,511	1,03,952	28,215	0.51	1,53,804	...	-1,30,589	51	79.54	...	...	...	...	...	...	
1881	73,65,710	2,81,529	66,056	0.90	2,62,932	...	-1,96,876	87	78.53	...	...	...	...	...	...	
1882	90,64,363	6,04,366	1,69,171	2.09	3,39,967	...	-1,50,796	114	68.70	...	...	...	...	...	...	
1883	96,13,590	13,20,021	6,83,860	7.09	3,73,233	...	+3,10,577	170	48.19	...	...	...	...	...	...	
1884	1,06,94,112	13,23,014	6,58,030	6.19	4,24,400	...	+2,33,630	171	57.82	...	...	...	...	...	...	
1885	1,50,66,406	14,14,889	4,93,575	3.28	5,86,281	...	-92,706	183	65.12	...	...	...	...	...	...	
1886	1,81,70,455	14,24,521	5,33,514	2.94	7,29,554	...	-1,96,041	184	62.51	37	104.35	...	...	...	...	
1887	2,42,30,977	14,47,705	3,03,207	1.25	13,35,563	...	-10,32,356	177	59.09	41	116.41	...	...	...	...	
1888	5,23,92,191	16,09,195	5,62,971	1.07	22,17,333	...	-16,54,362	...	...	...	...	164	67.58	...	...	
1889	7,08,75,456	19,96,970	4,03,160	0.57	29,96,364	...	-25,93,204	...	...	...	...	131	80.98	...	...	
1890	8,14,66,762	28,64,378	5,47,463	0.67	33,88,852	...	-28,41,389	...	...	...	...	101	80.89	...	...	
1891	9,08,04,164	54,57,356	26,84,453	2.96	35,05,676	...	-8,21,223	...	...	...	...	129	50.81	...	...	
1892	9,56,14,736	60,83,562	30,03,166	3.15	39,05,345	...	-8,97,179	...	...	...	...	141	50.55	...	...	
1893	9,80,08,424	64,17,751	32,62,220	3.33	43,97,594	...	-11,35,374	...	...	...	...	144	49.17	...	...	
1894	9,81,73,789	66,90,648	32,58,414	3.32	45,83,993	...	-13,25,579	...	...	...	...	149	51.30	...	...	
1895	9,83,94,777	68,74,740	35,41,444	3.58	48,56,800	...	-13,15,356	...	...	...	...	153	48.49	...	...	
1896	11,05,30,319	63,62,525	29,27,569	2.65	48,27,504	...	-18,99,635	...	...	...	...	142	54.03	...	...	
1897	13,04,58,734	62,00,309	29,79,559	2.28	51,35,240	...	-21,55,681	...	...	...	...	138	51.94	...	...	
1898	14,67,03,520	68,79,193	33,63,854	2.29	54,23,186	...	-20,59,332	...	...	...	...	143	51.10	...	...	
1899	16,65,90,365	90,73,460	47,21,814	2.83	59,75,853	...	-12,54,039	...	...	...	...	152	47.96	...	...	
1900	17,41,74,604	1,29,75,223	77,13,050	4.43	64,90,637	...	+12,22,413	...	...	...	...	207	40.56	...	...	
1901	21,19,23,276	1,30,77,769	61,43,848	2.90	79,88,163	1,78,810	-20,18,325	...	...	...	...	161	52.68	25	72.13	
1902	22,51,91,979	1,42,18,227	69,79,348	3.10	85,44,311	41,604	-16,06,569	...	...	...	...	176	51.09	21	77.27	
1903	24,97,56,940	1,55,47,702	70,45,255	2.82	89,66,131	4,067	-19,24,943	...	...	...	...	178	54.63	21	61.98	

2 (c) Parlakimedi Light railway (2' 6" gauge)—

On the 20th May 1901, the Indian railways Act, IX of 1890, except section 135, was applied to the line. The working of this railway was taken over by the Bengal-Nagpur railway from the 1st January 1902.

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
Naupada to Parlakimedi . . . . .	14-3-98	1-4-00	Miles. 24.62	Miles. 24.62

Details of construction—

- Permanent-way.*—The line is laid with 30 lb. flat-footed steel rails and transverse wooden sleepers.
- Ballast.*—The line is ballasted throughout.
- Fencing.*—The line is fenced where it runs along the public road.
- Curves.*—There are no curves of less than 1,000 feet radius.
- Gradients.*—The ruling gradient is 1 in 100.

Terms of contracts—

The Parlakimedi Light railway is worked under an agreement, dated the 14th April 1902, between the Raja of Parlakimedi and the Bengal-Nagpur Railway Company.

The general conditions of the agreement are as follows :—

- Government aid.*—Nil. The line is the property of the Rajah of Parlakimedi.
- Currency of agreement.*—The agreement is current to end of 1903 subject to renewal.
- Terms of working.*—Actual cost.
- Rates and fares.*—To be fixed by the Company.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1901	...	...	...	...	...	...
1902	...	...	...	...	...	...
1903	7,10,974	16,633	-9,265	...	18	155.70



APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 2</sup> <sub>Sub-heads (a) to (e)</sub> BENGAL-NAGPUR RAILWAY SYSTEM—concl'd.

2 (e) Moharbhaj railway (2' 6" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Baripada to Baripada Road station . . . . .	18-7-02	*1-1-05	32-10	32-10

The line is under construction by the Moharbhaj State. The question of working agency has not yet been finally settled.

Number <sup>Main head 3</sup> <sub>Sub-heads (a) to (o)</sub> BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—

Lines comprising system—The Bombay, Baroda and Central India railway system is made up of—

		Open line. Miles.	Under construction. Miles.	Total. Miles.
(a) Bombay, Baroda and Central India railway . . . . .	{ (5' 6" gauge) 465-12 } 504-35	39-23	...	504-35
(b) Godhra-Bunlam-Nagda railway . . . . .	{ (3' 3 3/4" gauge) 141-14 } 141-14	...	...	141-14
(c) Nagda-Ujjain railway . . . . .	{ (5' 6" gauge) 34-32 } 34-32	...	...	34-32
(d) Petlad-Cambay railway (Anand-Tarapur section) . . . . .	{ (5' 6" gauge) 21-50 } 21-50	...	...	21-50
(e) Petlad-Cambay railway (Tarapur-Cambay section) . . . . .	{ (5' 6" gauge) 10-92 } 10-92	...	...	10-92
(f) Tapi Valley railway . . . . .	{ (5' 6" gauge) 155-48 } 155-48	...	...	155-48
(g) Ahmedabad-Dholka railway . . . . .	{ (3' 3 3/4" gauge) 33-50 } 33-50	...	...	33-50
(h) Ahmedabad-Parantij railway . . . . .	{ (3' 3 3/4" gauge) 54-70 } 54-70	...	...	54-70
(i) Gekwar's Mehsana railway . . . . .	{ (3' 3 3/4" gauge) 92-63 } 92-63	...	...	92-63
(j) Palanpur-Deesa railway . . . . .	{ (3' 3 3/4" gauge) 17-28 } 17-28	...	...	17-28
(k) Rajputana-Malwa railway . . . . .	{ (3' 3 3/4" gauge) 1,649-80 } 1,649-80	133-32	...	1,782-62
(l) Vijapur-Kalol-Kadi railway . . . . .	{ (3' 3 3/4" gauge) 41-37 } 41-37	...	...	41-37
(m) Gekwar's Dabhoi railway . . . . .	{ (2' 6" gauge) 88-00 } 88-00	6-49	...	94-49
(n) Rajpipla railway . . . . .	{ (2' 6" gauge) 37-37 } 37-37	...	...	37-37
(o) Jaipur (Sivani-Madhapur) railway . . . . .	{ (3' 3 3/4" gauge) ... } ...	...	72-85	72-85
Total . . . . .		2,891-86	212-66	3,094-52

Running powers—

	Miles.
<i>Home line over Foreign line</i> :—	
Dadar Junction to Carnac bridge, Great Indian Peninsula railway . . . . .	4-39
<i>Foreign lines over Home line</i> :—	
East Indian railway, Agra East Bank to Agra Fort . . . . .	1-00
Great Indian Peninsula railway at Ujjain . . . . .	0-24
" " " Dadar Junction to Colaba . . . . .	7-25
" " " at Agra . . . . .	2-89
Total . . . . .	11-38

3 (a) Bombay, Baroda and Central India railway proper (5' 6" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
<i>Main line—</i>						
Colaba to Marine lines . . . . .	May 1856	18-1-70	2-00		1860	36
Marine lines to Charni Road . . . . .	1863	19-6-69	0-75		1861	134
Charni Road to Bellasis Road . . . . .	1868	13-9-68	0-75		1862	167
Bellasis Road to Bulsar . . . . .		28-11-64	121-00		1863	185
Bulsar to Navsari . . . . .		2-9-61	24-25		1864	306
Navsari to Sachin . . . . .		20-5-61	9-25		1865	306
Sachin to Surat . . . . .		18-3-61	9-00		1866	306
Surat to Amroli . . . . .		19-11-60	2-25		1867	306
Amroli to Anklesvar . . . . .		10-2-60	28-75		1868	307
Anklesvar to the Nerbudda . . . . .		5-12-60	5-50		1869	307
Nerbudda to Broach . . . . .	1857	22-6-60	5-50		1870	312
Broach to Baroda . . . . .	and	9-1-61	43-75		1871	350
Baroda to Dholia . . . . .	1859	22-4-61	11-25		1872	369
Dholia to Mohamadabad . . . . .		3-9-62	33-25		1873	412
Mohamadabad to Ahmedabad . . . . .		21-1-63	17-69		1874	428
Ahmedabad to Sabarmati . . . . .		1-1-70	3-75			
Sabarmati to Sanand . . . . .	October 1870	24-5-71	13-75			
Sanand to Virangam . . . . .		30-11-71	22-98			
Virangam to Wadhwan . . . . .		124-10-70	125-5-72	39-23		
Total main line, carried over . . . . .	...	...	...	389-35		

\* Probable date of opening.  
† Includes the Patri branch.  
‡ These are the dates for the original 5' 6" gauge line. The dates for the 3' 3 3/4" gauge line are 21st April and 14th December 1902.



Appendix 38.  
History of railways.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

## History of railways constructed and in progress.

[For Index see page 168.]

Number Main head 3 BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—contd.  
Sub-heads (a) to (o)

## 3 (a) Bombay, Baroda and Central India railway proper (5' 6" gauge)—contd.

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Brought forward—Total main line	...	...	...	389.35	1875	430
<b>Branches—</b>					1876	439
<i>Godhra branch—</i>					1877	444
Anand to Dakor	5-11-73	8-4-74	16.75		1878	444
Dakor to Rukhyal	...	6-1-75	1.75		1879	444
Rukhyal to Hungari	...	6-12-76	9.00		1880	444
Hungari to Pali	...	29-1-77	4.71		1881	444
Pali to Godhra	...	26-2-82	17.00		1882	461
			49.21		1883	461
<i>Patri branch—</i>					1884	461
Kharaghoda to Viramgam	13-6-71	12-5-73	22.12		1885	461
<i>Godhra-Baroda chord—</i>					1886	461
Baroda to Godhra	6-6-02	23-12-03	43.67		1887	461
				115.00	1888	461
Total branches	...	...	...	115.00	1889	461
TOTAL OPEN MILEAGE BOMBAY, BARODA AND CENTRAL INDIA PROPER	...	...	...	504.35	1890	461
					1891	461
					1892	461
					1893	461
					1894	461
<b>DOUBLE LINE—</b>					1895	461
Colaba to Marine lines	...	18-1-70	1.91		1896	461
Marine lines to Charni Road	...	19-6-69	0.71		1897	461
Charni Road to Bellasis Road	...	13-9-68	1.29		1898	461
Bellasis Road to Mahim	...	20-7-65	5.44		1899	461
Mahim to Bandra	...	23-2-66	1.07		1900	461
Bandra to Santa Cruz	...	23-5-66	1.83		1901	461
Santa Cruz to Andheri	...	29-8-67	2.71		1902	461
Andheri to Bhayndar	...	27-4-85	13.33		1903	504
Bhayndar to Virar	...	1-10-85	10.34			
Virar to Palghar	...	1-12-97	19.28			
Palghar to Dahanu Road	...	17-1-99	20.37			
Dahanu Road to Gholvad	...	20-4-00	6.68			
Gholvad to Daman Road	...	18-10-00	23.19			
Daman Road to Bulsar	...	29-1-02	16.44			
Bulsar to Sachin	...	21-4-02	32.90			
Sachin to Kankra Khari	...	4-7-87	6.36			
Kankra Khari to Surat	...	5-6-68	2.72			
Surat to Amroli	...	9-10-67	2.19			
Amroli to Sayan	...	25-5-98	6.43			
Sayan to Kim	...	1-10-99	6.33			
Kim to Anklesvar	...	11-12-99	16.16			
Broach to Miyagam	...	15-10-99	25.42			
Miyagam to Itola	...	15-9-97	7.32			
Itola to Baroda	...	7-6-95	10.77			
Berjadi to Ahmedabad	...	2-6-87	10.21			
TOTAL DOUBLE LINE	...	...	251.90*			

## Details of construction—

*Permanent-way.*—The main line is laid chiefly with 69 lb. double-headed steel rails. On the double line from Colaba to Mahim, Virar to Dahanu, Amroli to Anklesvar and Chamargam to Miyagam, 82 lb. bull-headed steel rails are laid on creosoted pine sleepers with four-holed chairs. On the double line from Dahanu to Sachin, Broach to Chamargam and Miyagam to Itola 82 lb. bull-headed steel rails are laid on cast-iron pot sleepers. On the double line from Mahim to Virar, 69 lb. double-headed steel rails are laid on creosoted pine sleepers. On the double line from Sachin to Amroli 69 lb. double-headed steel rails are laid on creosoted pine and cast-iron pot sleepers mixed. On the double line from Itola to Baroda, 69 lb. double-headed steel rails are laid on cast-iron pot sleepers. On the Patri branch 48 lb. and 50 lb. flat-footed rails are laid on creosoted pine sleepers. On the Godhra branch 61 lb. and 69 lb. double-headed steel rails are laid with a few trifling exceptions, on cast-iron pot sleepers. The Viramgam-Wadhwan section was originally laid with 60 lb. iron rails on cast-iron pot sleepers; on the conversion of the line to metre gauge these were replaced by 41½ lb. steel rails on deodar sleepers. On the Godhra-Baroda Chord, for the first 7 miles 82 lb. bull-headed steel rails are laid on cast-iron bowl sleepers; for the remainder 75 lb. flat-footed rails are laid on cast-iron bowl sleepers.

*Ballast.*—The main line, Bombay to Ahmedabad, the Godhra branch, and the Godhra-Baroda Chord, are ballasted with broken stone, shingle, and gravel ballast. The line between Ahmedabad and Wadhwan, with the exception of two short lengths ballasted with gravel, is ballasted with sand having a 3" covering of stone ballast. The Patri branch is ballasted with sand.

*Tunnels.*—See appendix 37.

*Bridges.*—See appendix 36.

*Fencing.*—The main line is fenced from Bombay to Ahmedabad with wire fencing; from Ahmedabad to Wadhwan with cactus for 27½ miles and wire fencing for 52½ miles. The Godhra branch is fenced with cactus for 2½ miles and with wire fencing for 46½ miles. The Godhra-Baroda Chord is fenced with the Government type of iron post and wire fencing. The Patri branch is unfenced.

*Curves.*—There are no curves with a radius of less than 1,500 feet.

*Gradients.*—On the main line the ruling gradient is 1 in 500; on the Godhra branch 1 in 200; on the Patri branch 1 in 300 and on the Godhra-Baroda Chord 1 in 300, except for a length of 2,200 feet where the gradient is 1 in 200.

\* Excluding 4.17 miles from Anklesvar to Nerbudda Block station constructed but not opened for traffic.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number—<sup>Main head 3</sup>  
Sub-heads (a) to (e) BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—contd.

3 (a) Bombay, Baroda and Central India railway proper (5' 6" gauge)—contd.

## Terms of contracts—

The railway is worked under the following contracts:—

*Contracts of*—21st November 1855—for the construction and working of a line from Surat to Baroda and thence to Ahmedabad.

2nd February 1859—for the construction and working of a line from Bombay to Surat.

17th November 1871—for the construction and working of a line from Viramgam to Wadhwan.

1st February 1901—as to share of working expenses debitable to branch lines worked.

The general conditions of the contracts are as follows:—

*Government aid.*—Guarantee of interest in sterling at 5 per cent. for the term of the contract. On some portion of the share capital and on debentures lower rates of interest are also guaranteed.*Currency of contracts.*—The contracts are current for a period of 99 years from 1855, after which the line becomes the property of Government on payment of the actual capital outlay in sterling. The Government may, however, determine the contracts by purchase after the expiration of 25 or 50 years of the term, namely in 1880 or 1905, at the mean market value of the shares during the three preceding years, possession being taken of the railway at the half-yearly day next but one following the notice. The Government may also determine the contracts at any time, on giving three months' notice, if the Company fail to observe obligations. In such case, Government repay the capital expended.*NOTE.*—The Government relinquished their right to determine the contracts at the end of the 25th year, and the only remaining opportunity of giving notice of purchase will be in 1905 (within six months of the 1st of May).*Power of Company to surrender contract.*—The Company may surrender, on six months' notice, at any time receiving back the capital expended.*Terms of working.*—After deducting working expenses (which may include any single item of capital expenditure not exceeding Rs. 1,000 to be classed as a 'Minor Work, subject to a maximum charge on such account of Rs. 5,000 in each half-year) surplus profits, after repayment of the guaranteed interest of each half-year, are divided equally between Government and the Company; the interest payments being calculated for the purpose of this division at 1s. 10d. to the rupee.*Rates and fares.*—Under the contract, Government fixed maxima rates and fares which cannot be altered by Government until the net receipts exceed 10 per cent. on the capital outlay. The fixed maxima rates cannot also be altered by the Company without Government sanction. Authority has, however, been given to the Company, by an executive order, to vary their rates within the prescribed maxima without reference to Government.

## Statistics of working—

TABLE I.

Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Guaranteed Interest.*	Company's share of net traffic receipts.†	Gain or loss to the State.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
1879	8,54,16,162	71,52,788	32,13,354	8.76	43,69,254	—	—11,55,900
1880	8,47,31,626	82,44,376	47,34,654	5.58	43,69,254	5,83,846	—8,02,293
1881	8,66,45,448	97,45,188	56,78,755	6.55	43,69,254	8,30,798	+4,78,703
1882	8,75,89,091	1,01,76,190	50,15,619	5.73	43,07,734	8,06,846	—98,461
1883	8,89,91,377	1,19,22,209	67,16,067	7.54	43,38,189	11,44,829	+12,33,049
1884	9,02,69,608	1,21,95,590	68,87,562	7.63	49,99,341	13,17,768	+5,70,453
1885	9,22,58,686	1,31,40,336	74,01,987	8.02	52,35,189	14,57,541	+7,89,257
1886	9,16,82,002	1,35,05,635	78,73,228	8.50	55,87,440	16,97,985	+5,87,803
1887	9,33,12,200	1,21,64,856	69,98,127	7.50	57,17,318	12,56,055	+24,754
1888	9,45,67,848	1,27,38,933	70,48,164	7.45	60,29,893	12,68,879	—2,50,608
1889	9,49,45,797	1,32,34,371	75,41,081	7.94	61,10,257	14,86,890	—55,566
1890	9,53,16,045	1,29,40,370	74,23,195	7.79	54,66,227	14,22,120	+5,34,848
1891	9,55,86,799	1,41,37,769	82,25,120	8.60	58,61,996	18,06,348	+5,56,776
1892	9,55,28,735	1,42,44,478	81,30,959	8.51	65,57,945	17,86,755	—2,18,741
1893	9,62,57,802	1,50,96,045	95,78,044	9.95	66,44,227	25,09,537	+4,24,280
1894	9,77,45,855	1,59,48,484	1,00,70,974	10.30	76,09,071	27,35,713	—2,73,810
1895	9,97,90,985	1,75,58,067	1,09,37,063	10.96	77,03,258	31,37,619	+96,186
1896	10,31,67,107	1,82,03,933	89,00,862	8.60	73,03,613	20,78,128	—4,80,579
1897	10,63,10,220	1,42,61,293	64,70,202	6.09	69,36,853	9,51,545	—14,18,196
1898	10,85,60,144	1,58,62,726	87,42,205	8.05	67,87,071	19,49,477	+5,657
1899	11,40,73,858	1,74,65,045	92,90,335	8.15	67,46,668	21,68,922	+3,74,775
1900	11,60,94,044	1,75,98,486	82,28,632	7.08	68,85,449	15,68,577	—1,75,894
1901	11,95,81,022	1,59,38,796	87,53,789	7.32	70,04,569	18,11,890	—62,670
1902	12,18,78,965	1,57,43,536	79,37,622	6.51	71,28,187	12,98,644	—4,84,309
1903	12,37,33,839	1,69,63,028	84,95,201	6.87	72,59,871	15,12,518	—2,77,188

\* Converted at current rates of exchange.  
† Arrived at under terms of contract.

## Appendix 38.

## History of railways.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 3</sup> <sub>Sub-heads (a) to (c)</sub> BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—contd.

## 3 (a) Bombay, Baroda and Central India railway proper (5' 6" gauge)—concl'd.

Statistics of working—concl'd.

TABLE II.

Calendar year.	Earnings per mile per week.	Proportion of expenses to earnings.	Calendar year.	Earnings per mile per week.	Proportion of expenses to earnings.	Calendar year.	Earnings per mile per week.	Proportion of expenses to earnings.	Calendar year.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.			Rs.			Rs.			Rs.	
1860 . . . . .	49	70·17	1871 . . . . .	300	59·98	1882 . . . . .	427	50·76	1893 . . . . .	630	36·55
1861 . . . . .	73	54·97	1872 . . . . .	290	59·97	1883 . . . . .	497	43·10	1894 . . . . .	665	36·85
1862 . . . . .	94	50·14	1873 . . . . .	250	59·23	1884 . . . . .	509	42·85	1895 . . . . .	732	37·69
1863 . . . . .	138	49·51	1874 . . . . .	565	52·12	1885 . . . . .	548	43·11	1896 . . . . .	676	45·07
1864 . . . . .	156	65·33	1875 . . . . .	285	54·41	1886 . . . . .	564	41·12	1897 . . . . .	595	54·63
1865 . . . . .	223	63·83	1876 . . . . .	296	54·74	1887 . . . . .	508	41·89	1898 . . . . .	662	44·89
1866 . . . . .	278	71·93	1877 . . . . .	345	41·97	1888 . . . . .	532	44·11	1899 . . . . .	729	46·81
1867 . . . . .	291	66·56	1878 . . . . .	298	46·61	1889 . . . . .	552	42·44	1900 . . . . .	734	52·50
1868 . . . . .	287	73·66	1879 . . . . .	309	46·97	1890 . . . . .	540	42·06	1901 . . . . .	665	44·06
1869 . . . . .	307	74·32	1880 . . . . .	355	42·57	1891 . . . . .	590	41·23	1902 . . . . .	659	49·00
1870 . . . . .	327	60·54	1881 . . . . .	423	41·04	1892 . . . . .	594	42·92	1903 . . . . .	753	49·46

## 3 (b) Godhra-Rutlam-Nagda railway (5' 6" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Godhra to Limkhara . . . . .	29-10-90	16-1-93	25·09	141·14	1893	25
Limkhara to Dohad . . . . .		7-3-94	19·55		1894	115
Dohad to Rutlam . . . . .	Dec. 1894	22-10-94	70·46	141·14	1895	115
Rutlam to Nagda . . . . .		11-5-96	26·04		1896 to 1903	141
TOTAL . . . . .	...	...	...	141·14		

## Details of construction—

*Permanent-way.*—The permanent-way consists of 75 lb. flat-footed, steel rails, laid on transverse steel, deodar and creosoted pine sleepers.

*Ballast.*—The line is ballasted throughout with broken stone and gravel.

*Fencing.*—The line is fenced with wire from mile 0 to mile 35 and in various other sections, making an aggregate of 76½ miles. The rest of the line is unfenced.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 200.

## Terms of contracts—

The railway is worked under the following contracts :—

*Contracts of*—5th October 1893 (between the Secretary of State and the Bombay, Baroda and Central India Railway Company) for working the Godhra-Rutlam railway.

1st October 1897 (between the Secretary of State and the Bombay, Baroda and Central India Railway Company) for working the Rutlam-Nagda railway.

1st February 1901 (between the Secretary of State and the Bombay, Baroda and Central India Railway Company) as to percentage of working charges.

The general conditions of the contracts are the same as on the Rajputana-Malwa railway.

Statistics of working.—Included with the Rajputana-Malwa railway.

## 3 (c) Nagda-Ujjain railway (5' 6" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Nagda to Ujjain . . . . .	17-12-04	15-7-06	34·32	34·32

APPENDIX 38—contd.

Appendix 38.  
History of railways.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 163.]

Number <sup>Main head 3</sup> <sub>Sub-heads (a) to (o)</sub> BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—contd.

3 (c) Nagda-Ujjain railway (5' 6" gauge)—contd.

Details of construction—

*Permanent-way.*—The permanent-way consists of 75 lb. flat-footed steel rails, with 5 bolt-hole fish-plates, laid on cast-iron oval pot sleepers, Indian Midland railway pattern.

*Ballast.*—The line is ballasted with broken stone.

*Fencing.*—The line has not been fenced, except round station yards.

*Curves.*—There are no curves with a radius of less than 1,910 feet.

*Gradients.*—The ruling gradient is 1 in 200.

Terms of contracts—

The railway is worked under the following:—

*Agreement of.*—15th July 1896 (between His Highness the Maharaja of Scindia and the Bombay, Baroda and Central India Railway Company) for working.

*Contract of.*—1st February 1901 (between the Secretary of State and the Bombay, Baroda and Central India Railway Company) as to percentage of working charges.

The general conditions are as follows:—

*Government aid.*—Nil. The line is the property of the Scindia State.

*Currency of agreement.*—

*Power to determine agreement.*—

} The agreement may be terminated at any time on one year's notice from either party, expiring on the 30th June or 31st December in any year.

*Terms of working.*—The railway is debited with a share of the working expenses of the system (which may include any single item of capital expenditure, not exceeding Rs. 1,000 classed as a 'Minor Work,' subject to a maximum charge on such account of an amount bearing the same percentage of gross receipts as obtains for similar expenditure on the Bombay, Baroda and Central India railway) excluding 2' and 2' 6" gauge lines, in proportion to the total earnings of the Nagda-Ujjain railway.

*Rates and fares.*—Conform generally with those in force on the Godhra-Rutlam-Nagda railway.

Statistics of working—

TABLE I.					TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1895 . . . . .	5,33,660	...	...	...	...	...
1896 . . . . .	20,71,251	40,701	17,762	0.86	49	56.36
1897 . . . . .	22,19,919	1,04,639	47,756	2.15	58	54.36
1898 . . . . .	22,31,596	1,29,627	71,509	3.20	73	44.83
1899 . . . . .	22,34,346	1,47,175	77,732	3.48	83	47.18
1900 . . . . .	22,29,753	2,51,783	1,29,956	5.42	141	51.96
1901 . . . . .	22,31,982	1,12,366	67,208	3.01	63	40.19
1902 . . . . .	22,39,663	1,57,211	85,951	3.83	88	45.39
1903 . . . . .	22,41,230	1,20,951	62,949	2.81	68	47.95

3 (d) Petlad-Cambay railway (Anand-Tarapur section) (5' 6" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Anand to Petlad . . . . .	Dec. 1888	5-5-90	18.17	21.50	1890 to 1900	18
Petlad to Tarapur . . . . .	4-7-99	20-6-01	3.33		1901 to 1903	
TOTAL . . . . .	...	...	...			

Details of construction—

*Permanent-way.*—The permanent-way from Anand to Petlad consists of 66½ lb. flat-footed steel rails on steel sleepers and from Petlad to Tarapur on creosoted pine sleepers.

*Ballast.*—The line is ballasted with gravel.

*Fencing.*—The whole of the Anand-Petlad section is fenced with cactus.

*Curves.*—There are no curves with a radius of less than 1,433 feet.

*Gradients.*—The ruling gradient is 1 in 200.

**Appendix 38.**  
History of railways.

**APPENDIX 38—contd.**

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 3</sup> <sub>Sub-heads (a) to (v)</sub> **BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—contd.**

**3 (d) Petlad-Cambay railway (Anand-Tarapur section) (5' 6" gauge)—contd.**

**Terms of contracts—**

The railway is worked under the following :—

*Agreement of*—5th May 1890 (between the Government of His Highness the Gaekwar of Baroda and the Bombay, Baroda and Central India Railway Company) for working.

*Contract of*—1st February 1901 (between the Secretary of State and the Bombay, Baroda and Central India Railway Company) as to percentage of working charges.

The general conditions are as follows :—

*Government aid.*—Nil. The line is the property of the Baroda State.

*Currency of agreement.*—The agreement is current for a period of three years.

*Power to determine agreement.*—Either party may terminate the agreement at any time on giving one year's notice.

*Terms of working.*—The railway is debited with a share of the working expenses of the system (which may include any single item of capital expenditure, not exceeding Rs. 1,000 classed as a 'Minor Work,' subject to a maximum charge on such account of an amount bearing the same percentage of gross receipts as obtains for similar expenditure on the Bombay, Baroda and Central India railway) excluding 2' and 2' 6" gauge lines, in proportion to the total earnings of the Petlad-Cambay, Gaekwar's Mehsana and Vijapur-Kalol-Kadi railways.

*Rates and fares.*—To be fixed from time to time by the Company with the approval of His Highness' Government and, as far as possible, to conform with those generally in force on the Bombay, Baroda and Central India railway.

**Statistics of working—**

CALENDAR YEAR.	TABLE I.				TABLE II.				
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percent on capital outlay.	GAEKWAR'S PETLAD, 5' 6".		PETLAD-CAMBAY (ANAND-TARAPUR SECTION), 5' 6".		
					Earnings per mile per week.	Proportion of expenses to earnings.	Earnings per mile per week.	Proportion of expenses to earnings.	
	Rs.	Rs.	Rs.		Rs.		Rs.		
1888 . . . . .	11,030	...	...	...	...	...	...	...	...
1889 . . . . .	4,71,822	...	...	...	...	...	...	...	...
1890 . . . . .	6,47,922	32,649	20,870	3.22	71	36.08	...	...	...
1891 . . . . .	7,10,118	59,113	36,346	5.12	85	38.51	...	...	...
1892 . . . . .	7,11,081	61,243	34,757	4.89	88	43.25	...	...	...
1893 . . . . .	7,12,768	63,953	40,627	5.70	92	36.47	...	...	...
1894 . . . . .	7,23,482	69,668	44,037	6.09	100	36.79	...	...	...
1895 . . . . .	7,23,139	73,891	46,584	6.44	106	36.96	...	...	...
1896 . . . . .	7,23,616	1,17,540	82,847	11.45	169	29.52	...	...	...
1897 . . . . .	7,55,769	64,737	33,946	4.49	93	47.56	...	...	...
1898 . . . . .	7,49,047	51,121	28,156	3.76	74	44.92	...	...	...
1899 . . . . .	7,52,469	70,668	39,312	5.22	102	44.37	...	...	...
1900 . . . . .	7,52,097	88,481	41,713	5.55	127	52.36	...	...	...
1901 . . . . .	11,86,331	93,233	51,769	4.36	...	...	101	44.47	...
1902 . . . . .	11,85,930	1,05,951	56,818	4.79	...	...	95	46.37	...
1903 . . . . .	11,48,092	98,451	50,289	4.38	...	...	88	48.92	...

**3. (e) Petlad-Cambay railway (Tarapur-Cambay section) (5' 6" gauge)—**

**Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Tarapur to Cambay . . . . .	4-7-99	20-6-01	10.92	10.92

**Details of construction—**

*Permanent-way.*—The permanent-way consists of 66½ lb. flat-footed steel rails laid on creosoted pine sleepers.

*Ballast.*—The line is ballasted with gravel.

*Fencing.*—The line has not been fenced, except round station yards.

*Curves.*—There are no curves with a radius of less than 1,910 feet.

*Gradients.*—The ruling gradient is 1 in 200.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number Main head 3 BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—*contd.*  
Sub-heads (a) to (e)3. (e) Petlad-Cambay railway (Tarapur-Cambay section) (5' 6" gauge)—*concl'd.*

## Terms of contracts—

The railway is worked under—

*Agreement of*—17th May 1902 (between the Cambay State and the Bombay, Baroda and Central India Railway Company) for working.

The general conditions of the agreement are as follows :—

*Government aid.*—Nil. The line is the property of the Cambay State.*Currency of agreement.*—*Power to determine agreement.*—

} The agreement may be terminated at any time on one year's notice from either party, expiring on the 30th June or 31st December in any year.

*Terms of working.*—The railway is debited with a share of the working expenses of the system (which may include any single item of capital expenditure not exceeding Rs. 1,000 classed as a 'Minor Work,' subject to a maximum charge on such account of an amount bearing the same percentage of gross receipts as obtains for similar expenditure on the Bombay, Baroda and Central India railway) excluding 2' and 2' 6" gauge lines, in proportion to the total earnings of the Tarapur-Cambay railway.*Rates and fares.*—To be fixed from time to time by the Company with the approval of the Cambay State and as far as possible, to conform with those generally in force on the Bombay, Baroda and Central India railway.

## Statistics of working—

TABLE I.					TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1901 . . . . .	7,49,676	12,011	5,950	0.79	40	50.46
1902 . . . . .	7,49,676	25,497	13,622	1.81	45	46.57
1903 . . . . .	7,49,676	25,151	12,803	1.71	44	49.10

## 3. (f) Tapti Valley railway (5' 6" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Kankra Khari to Vyara . . . . .	...	1-12-98	35.59			
Vyara to Chinchpada . . . . .	...	10-7-99	36.55		1898	36
Chinchpada to Nandarbar . . . . .	...	8-10-99	25.20		1899	139
Nandarbar to Dondaiche . . . . .	...	11-11-99	21.44		1900	} 155
Dondaiche to Nardana . . . . .	...	25-11-99	19.78		to	
Nardana to Amalner . . . . .	...	15-3-00	16.92		1903	
TOTAL . . . . .	...	...	...	155.48		

## Details of construction—

*Permanent-way.*—The permanent-way consists of 70 lb. flat-footed steel rails laid on creosoted pine and teak sleepers.*Ballast.*—The line is ballasted throughout with stone.*Fencing.*—The line is not fenced, except round station yards.*Curves.*—There are no curves with a radius of less than 1,910 feet.*Gradients.*—The ruling gradient of the line is 1 in 200.

## Terms of contracts—

The railway is worked under the following contracts :—

*Contracts of*—28th August 1896 (between the Secretary of State and the Tapti Valley Railway Company) for construction.

30th October 1896 (between the Secretary of State and the Bombay, Baroda and Central India Railway Company) for maintenance and working.

1st February 1901 (between the Secretary of State and the Bombay, Baroda and Central India Railway Company) as to percentage of working charges.

The general conditions of the contracts are as follows :—

*Government aid.*—A rebate is allowed up to 10 per cent. of the gross earnings of the Bombay, Baroda and Central India and Rajputana-Malwa railways from traffic interchanged with the Tapti Valley railway, so as to make up an amount equal to interest for the year at the rate of 4 per cent. per annum on the actual capital expenditure, plus a sum of Rs. 6,000 per annum towards the Company's office expenses and expenses of management. Land in British territory has also been provided free.

## Appendix 38.

## History of railways.

## APPENDIX 38—contd.

[ Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 3</sup> <sup>Sub-heads (a) to (e)</sup> BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—contd.

## 3. (f) Tapti Valley railway (5' 6" gauge)—concl'd.

## Terms of contracts—concl'd.

*Currency of contracts.*—Government may, by giving 12 months' notice, determine the contracts on the 31st December 1921, or at the end of any subsequent period of 10 years, paying the Company in rupees a sum equal to 25 times the average yearly net earnings of the Company during the last preceding five years, provided that such sum shall not exceed by more than 20 per cent. the total capital expenditure of the Company or be less than such capital expenditure; or Government may determine it on the 31st December 1950, paying the Company in rupees an amount equal to the total capital expenditure.

*Power of Company to surrender contract.*—Nil.

*Terms of working.*—Government undertake to construct (from funds supplied by the Company), work and maintain the line through State or other agency, the necessary rolling-stock being supplied by the working agency. The general working expenses of the system, excluding the 2' and 2' 6" gauge lines, are divided in proportion to the gross earnings of the component parts, the Tapti Valley railway being debited with the share thus arrived at (which may include any single item of capital expenditure, not exceeding Rs. 1,000 classed as a 'Minor Work,' subject to a maximum charge on such account of Rs. 20 per mile of line open in each half-year), subject to a maximum charge of 44 per cent. of its gross earnings for the year. The residue of the gross earnings is payable to the Tapti Valley Railway Company.

*Rates and fares.*—To be arranged from time to time between Government and the working agency within the maximum and minimum rates and fares for the time being in force on the Bombay, Baroda and Central India railway.

## Statistics of working—

Calendar year.	TABLE I.							TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage on capital outlay.	Rebate from B., B. & C. I. Ry.	Total income.	Per cent. of total income on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	
1896	8,390	...	...	...	...	...	...	...	...
1897	20,96,291	...	...	...	...	...	...	...	...
1898	6,04,45,413	2,836	...	...	...	...	...	18	48.70
1899	1,21,09,133	2,42,593	...	...	...	...	...	71	47.40
1900	1,28,31,291	6,68,475	†	...	...	...	...	84	44.00
1901	1,29,18,730	6,00,553	8,42,243	2.65	33,225	3,75,469	2.90	74	43.01
1902	1,29,70,581	8,26,485	4,64,243	3.57	45,196	5,08,498	3.92	102	43.95
1903	1,30,02,400	8,62,753	4,83,142	3.72	40,258	5,23,400	4.03	107	44.00

## 3. (g) Ahmedabad-Dholka railway (3' 3½" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Sabarmati to Bavla	2-10-01	23-2-03	21.75	...
Bavla to Dholka		1-4-03	8.75	...
TOTAL	...	...	...	33.50

## Details of construction—

*Permanent-way.*—The permanent-way consists of 4½ lb. flat-footed steel rails laid on deodar sleepers.

*Ballast.*—Ballast is provided only at points and crossings, and for 100 feet on each side of bridges and level crossings.

*Fencing.*—The line is unfenced.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 150.

## Terms of contracts—

The railway is worked under the following contracts:—

*Contracts of*—25th March 1902 (between the Secretary of State and the Ahmedabad-Dholka Railway Company) for construction.

18th July 1902 (between the Secretary of State and the Bombay, Baroda and Central India Railway Company) for working.

The general conditions of the contracts are as follows:—

*Government aid.*—A rebate is allowed up to 10 per cent. of the gross earnings of the Bombay, Baroda and Central India and Rajputana-Malwa railways from traffic interchanged with the Ahmedabad-Dholka railway so as to make up an amount equal to interest for the year at the rate of 4 per cent. per annum on the actual capital expenditure plus Rs. 5,000 per annum towards the Company's office expenses and expenses of management. Land has also been provided free.

*Currency of contracts.*—Government may, by giving 12 months' notice, determine the contracts on the 30th June 1922 or at the end of any subsequent period of ten years, paying the Company in rupees a sum equal to 25 times the average yearly net earnings of the Company during the last preceding three years, but not exceeding by more than 20 per cent. the total capital expenditure of the Company, nor being less than such capital expenditure.

\* Credited to interest on capital.

† The net earnings for the first-half of 1900 were credited to interest on capital, and those for the second-half of 1900 (including rebate) were treated as a set off against the charge to capital for interest in the accounts for the first-half of 1901.

‡ Under terms of the contract of 1st February 1901.

§ Excluding interest, Rs. 4,433, on the capital cost of works at Amalner junction, the percentage was 4.00.



## APPENDIX 38—contd.

Appendix 38.  
History of railways.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

## History of railways constructed and in progress.

[For Index see page 168.]

Main head 3  
Sub-heads (a) to (o) BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—contd.(g) Ahmedabad-Dholka railway (3' 3½" gauge)—concl'd.  
Terms of contracts—concl'd.

Power of Company to surrender contracts.—Nil.

**Terms of working.**—The railway is debited with a share of the working expenses of the system (which may include any single item of capital expenditure, not exceeding Rs. 1,000 classed as a 'Minor Work,' subject to a maximum charge on such account of Rs. 20 per mile of line open in each half-year) excluding the 2' and 2' 6" gauge lines, proportionate to total earnings, but not exceeding 4½ per cent. of its gross earnings for the year. The net earnings thus arrived at payable to the Ahmedabad-Dholka Railway Company.

**Rates and fares.**—To be arranged from time to time between Government and the working agency within the maximum and minimum rates and fares in force on the undertaking.

Statistics of working—

TABLE I.							TABLE II.		
Calendar year.	Capital outlay.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Rebate from Bombay, Baroda and Central India railway.	Total income.	Per cent. of total income on capital outlay.	Earnings per mile per week.	Pro. of exp. to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	
1896	10,13,420	64,261	35,986	3.55	...	35,986	3.55	45	44.00

(h) Ahmedabad-Parantij railway (3' 3½" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Ahmedabad to Talod	January 1896	1-5-97	32.82	54.70
Talod to Parantij		2-7-97	7.83	
Parantij to Idar-Ahmednagar		23-10-97	14.05	
TOTAL	...	...	...	54.70

Details of construction—

**Permanent-way.**—The permanent-way consists of 41½ lb. flat-footed steel rails laid on transverse deodar and creosoted line sleepers.

**Ballast.**—The line is ballasted throughout with stone, kunkur or sand.

**Fencing.**—The line is unfenced except round station yards.

**Curves.**—There are no curves with a radius of less than 1,000 feet.

**Gradients.**—The ruling gradient is 1 in 150.

Terms of contracts—

The Ahmedabad-Parantij railway is worked under the following contracts:—

**Contracts of**—13th March 1896 (between the Secretary of State and the Ahmedabad-Parantij Railway Company) for construction.

4th June 1896 (between the Secretary of State and the Bombay, Baroda and Central India Railway Company) for working.

1st February 1901 (between the Secretary of State and the Bombay, Baroda and Central India Railway Company) as to percentage of working charges.

The general conditions of the contracts are as follows:—

**Government aid.**—A rebate is allowed up to 10 per cent. of the gross earnings of the Bombay, Baroda and Central India and Rajputana-Malwa railways from traffic interchanged with the Ahmedabad-Parantij railway so as to make up an amount equal to interest for the year at the rate of 4 per cent. per annum on the actual capital expenditure, plus Rs. 5,000 per annum towards the Company's office expenses and expenses of management. Land has also been provided free.

**Currency of contracts.**—Government may, by giving 12 months' notice, determine the contracts on the 31st December 1917 or at the end of any subsequent period of ten years, paying the Company in rupees a sum equal to 25 times the average yearly net earnings of the Company during the last preceding five years, but not exceeding by more than 20 per cent. the total capital expenditure of the Company, nor being less than such capital expenditure, or on the 31st December 1896 paying the Company in rupees an amount equal to the total capital expenditure.

**Power of Company to surrender contracts.**—Nil.

**Terms of working.**—The railway is debited with a share of the working expenses of the system (which may include any single item of capital expenditure, not exceeding Rs. 1,000 classed as a 'Minor Work,' subject to a maximum charge on such account of Rs. 20 per mile of line open in each half-year) excluding the 2' and 2' 6" gauge lines, proportionate to its total earnings, but not exceeding 4½ per cent.\* of its gross earnings for the year. The net earnings thus arrived at are payable to the Ahmedabad-Parantij Railway Company.

**Rates and fares.**—To be arranged from time to time between Government and the working agency within the maximum and minimum rates and fares in force on the Rajputana-Malwa railway.

\* Under terms of the contract of the 1st February 1901.

Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 168.]

Number Main head 3 BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—contd.  
Sub-heads (a) to (e)

3. (A) Ahmedabad-Parantij railway (3' 3½" gauge)—contd.

Statistics of working—

Calendar year.	TABLE I.							TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage on capital outlay.	Rebate from B., B. & C. I. Ry.	Total income.	Per cent. of total income on capital outlay.	Earnings per mile per week.	Pro: of exp to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	
1896	13,12,752	...	...	...	...	...	...	...	...
1897	19,42,211	69,069	36,665	1.89	...	36,665	1.89	46	46.92
1898	19,42,971	1,49,790	85,836	4.42	...	85,836	4.42	33	42.70
1899	19,49,616	2,10,634	1,12,687	6.24	...	1,12,687	6.24	74	42.23
1900	19,55,305	2,65,105	1,55,952	7.93	...	1,55,952	7.98	93	41.17
1901	19,49,855	1,77,438	99,365	5.10	...	99,365	5.10	62	44.00
1902	19,70,012	1,79,794	1,00,685	5.11	...	1,00,685	5.11	63	40.04
1903	18,88,869	1,50,112	84,063	4.23	...	84,063	4.23	58	44.00

3 (i) Gaekwar's Mehsana railway (3' 3½" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Mehsana to Vadnagar	...	21-3-87	20.73		1887	21
Vadnagar to Kheralu	...	12-12-88	7.00		1888	28
Virangam to Mehsana	...	1-2-91	40.21		1889	28
Mehsana to Patan	...	20-7-91	24.69		1890	28
					1891	
					to	
					1903	93
<b>TOTAL</b>				<b>92.63</b>		

Details of construction—

*Permanent-way.*—The length from Mehsana to Kheralu is laid with 41½ lb. flat-footed steel rails on transverse steel trough sleepers. The remainder of the line is laid with 40 lb. iron and 41½ lb. steel rails, on deodar sleepers, except a mile on the Mehsana-Virangam section, on which the rails are laid on steel trough sleepers.

*Ballast.*—The line is ballasted throughout with stone, kunkur or sand.

*Fencing.*—The whole line, except 41½ miles which are fenced by wire, was originally fenced with cactus; but this has in several places been entirely destroyed by floods and locusts, and what remains is much broken up.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 150.

Terms of contracts—

The railway is the property of the Baroda State and is worked under the following:—

*Agreement of*—1st July 1891 (between the Government of His Highness the Gaekwar of Baroda and the Bombay, Baroda and Central India Railway Company) for working.

*Contract of*—1st February 1901 (between the Secretary of State and the Bombay, Baroda and Central India Railway Company) as to percentage of working charges.

The terms of working are the same as on the Petlad-Cambay railway (Anand-Tarapur section).

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Pro: of exp to earnings.
	Rs.	Rs.	Rs.		Rs.	
1887	13,55,492	27,890	5,564	0.41	33	80.05
1888	9,16,565	47,502	16,672	1.82	43	64.90
1889	11,18,446	58,290	20,348	1.82	37	61.82
1890	25,44,340	59,241	23,908	0.92	41	60.66
1891	29,04,050	1,94,247	1,06,801	3.64	49	45.53
1892	29,71,610	2,58,963	1,58,005	5.15	54	40.92
1893	30,26,752	3,36,859	1,98,250	6.55	70	41.12
1894	30,94,578	3,79,972	2,36,387	7.64	79	37.79
1895	32,55,044	3,38,444	2,02,440	6.22	70	40.18
1896	32,61,448	4,23,283	2,71,262	8.32	88	35.91
1897	32,63,900	3,39,125	1,18,358	3.63	88	46.58
1898	32,82,612	3,46,491	1,99,052	6.07	72	42.55
1899	32,83,612	3,76,160	2,16,654	6.60	79	42.40
1900	33,01,950	4,28,545	2,36,754	7.17	89	44.75
1901	33,48,911	3,92,227	2,15,111	6.44	81	45.16
1902	33,68,329	3,74,515	1,98,977	5.92	78	46.87
1903	33,78,132	3,47,083	1,77,468	5.25	72	48.87

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 3</sup> <sub>Sub-heads (a) to (o)</sub> BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—contd.3. (j) Palanpur-Deesa railway (3' 3½" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Palanpur to Deesa . . . . .	20-3-92	8-11-93	17-28	17-28

## Details of construction—

*Permanent-way.*—The permanent-way consists of 40 lb. iron rails laid on Denham-Olpherts' plate, cast-iron, pot, and on steel dish cover sleepers.

*Ballast.*—The line is ballasted throughout with stone, kunkur or sand.

*Fencing.*—The entire length, with the exception of a little wire fencing at mile 2, is fenced with cactus.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 150.

## Terms of contracts—

The railway is worked under—

*Terms* contained in letter No. 44 Ry., dated the 30th March 1892, from the Government of India to the Secretary of State, and letter No. 62 Ry., dated 23rd June 1892, from the Secretary of State to the Government of India.

*Contract of.*—1st February 1901 (between the Secretary of State and the Bombay, Baroda and Central India Railway Company) as to percentage of working charges.

The general conditions are as follows:—

*Government aid.*—The line is owned jointly by Government and by the Palanpur Durbar.

*Currency of contract.*—The contract is coterminous with the Company's contract for working the Rajputana-Malwa railway. In the event of the line being extended, Government can terminate the contract on giving the Company six months' notice.

*Power of Company to surrender contract.*—Nil.

*Terms of working.*—The railway is debited with a share of the working expenses of the system, excluding the 2' and 2' 6" gauge lines, in proportion to the total earnings of the Palanpur-Deesa railway, the net earnings thus arrived at in any half-year being divided between Government and the Palanpur Durbar in proportion to the capital provided by each after excluding from the Government capital the sum of Rs. 25,117, the extra expenditure incurred in providing a 5' 6" gauge sub-structure.

*Rates and fares.*—Same as on the Rajputana-Malwa railway.

## Statistics of working—

Calendar year.	PALANPUR-DEESA (NATIVE STATE SECTION).				PALANPUR-DEESA (BRITISH SECTION).						TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Gain or loss to the State.	Earnings per mile per week.	Pro: of exp: to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	
1892 . . . . .	20,000	...	...	...	46,746	...	...	...	1,031	-1,031	...	...
1893 . . . . .	1,85,000	2,255	1,335	0.72	1,78,953	2,181	1,110	0.63	5,871	-4,261	38	44.87
1894 . . . . .	1,85,000	17,381	11,365	6.14	2,14,601	20,163	11,781	5.49	8,783	+2,998	42	38.85
1895 . . . . .	1,85,000	17,643	11,333	6.13	2,15,374	20,539	11,512	5.35	8,378	+3,134	42	40.17
1896 . . . . .	1,85,000	22,864	14,101	7.62	2,32,746	28,765	15,072	6.47	9,149	+5,923	57	43.50
1897 . . . . .	1,85,000	19,183	10,883	5.88	2,33,264	24,131	12,243	5.25	9,305	+2,938	48	46.55
1898 . . . . .	1,85,000	16,893	10,324	5.59	2,33,264	21,306	11,628	4.99	9,331	+2,297	43	42.50
1899 . . . . .	1,85,000	19,739	12,102	6.54	2,33,264	24,889	13,618	5.84	9,330	+4,298	50	42.37
1900 . . . . .	1,85,000	21,084	14,238	7.70	2,33,264	26,585	12,616	5.41	9,330	+3,826	53	43.66
1901 . . . . .	1,85,000	16,279	9,375	5.97	2,33,264	20,526	10,548	4.52	9,330	+1,218	41	45.87
1902 . . . . .	1,85,000	14,777	8,329	4.50	2,36,786	18,913	8,330	3.52	9,408	-1,078	37	47.01
1903 . . . . .	1,85,000	13,033	7,423	4.01	2,37,069	16,701	7,893	3.33	9,432	-1,584	33	43.47

## 3. (k) Rajputana-Malwa railway (3' 3½" gauge)—

The Maharaja Holkar lent the British Government one hundred lakhs of rupees at 4½ per cent. per annum for the construction of the Khandwa-Indore section, and is entitled to a moiety of surplus profits.

Appendix 38.  
History of railways.

APPENDIX 38—contd.  
[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.  
[For Index see page 168.]

Number <sup>Main head 3</sup> <sub>Sub-heads (a) to (o)</sub> BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—contd.

3. (k) Rajputana-Malwa railway (5' 3 3/4" gauge)—contd.

The Maharaja Scindia lent the British Government seventy-five lakhs of rupees at 4 per cent. per annum for the construction of the Indore-Neemuch section and the branch to Ujjain.

The Cawnpore-Achnera line was leased to the Bombay, Baroda and Central India Railway Company on the 1st October 1886, and is now treated as an integral part of the Rajputana-Malwa railway; but Government reserve the right to take back the line at any time.

The Rajputana-Malwa railway system has been worked by the Bombay, Baroda and Central India Railway Company since the 1st January 1885.

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
<b>RAJPUTANA SECTION—</b>						
<i>Main line—</i>						
Delhi to Rewari . . . . .	1-3-70	14-2-78	51-25			
Rewari to Alwar . . . . .	14-8-72	15-9-74	46-25		1873	91
Alwar to Bandikui . . . . .		7-12-74	37-75		1874	329
Bandikui to Dausa . . . . .	20-10-71	20-4-74	17-75		1875	465
Dausa to Jaipur . . . . .		12-10-74	38-00		1876	535
Jaipur to Phulera . . . . .	9-4-73	1-3-75	34-25			
Phulera to Ajmer . . . . .		1-1-75	49-75		1877	535
Ajmer to Beawar . . . . .	4-9-76	15-5-78	32-25		1878	632
Beawar to Haripur . . . . .		12-8-79	21-00		1879	753
Haripur to Sojat Road . . . . .	4-9-76	20-10-80	20-50		1880	911
Sojat Road to Falanpur . . . . .		1-1-81	148-00			
Falanpur to Ahmedabad . . . . .		15-11-79	83-00		1881	1,256
<b>Total main line, Rajputana section</b> . . . . .	...	...	579-75		1882	1,251
					1883	1,316
					1884	1,603
<i>Branches on Rajputana section—</i>						
<i>Farukhnagar Salt branch</i> . . . . .	1-3-70	14-2-78	7-75		1885	1,667
					1886	1,668
					1887	1,668
					1888	1,665
<i>Agra branch—</i>						
Bandikui to Bharatpur . . . . .	20-10-71	24-4-74	60-50		1889	1,672
Bharatpur to Agra Fort . . . . .		11-8-78	34-14		1890	1,672
Agra Fort to Jumna East bank . . . . .		1-1-76	1-50		1891	1,674
			96-14		1892	1,674
<i>Sambhar Lake Salt branch</i> . . . . .	8-4-73	1-3-75	4-50		1893	1,674
<i>Japog extension</i> . . . . .	14-7-75	Oct. 76	4-50		1894	1,674
<i>Extension of Sambhar branch to Jhokra</i> . . . . .	15-5-78	20-12-79	17-00		1895	1,674
<i>Kankaroola siding</i> . . . . .	...	15-2-81	1-25		1896	1,674
<i>Additional salt sidings in the Sambhar lake</i> . . . . .	...	1-9-91	5-02			
					1897	1,674
					1898	1,674
					1899	1,669
					1900	1,678
<i>(5' 6" gauge.)</i>						
Jumna East bank to Agra Cantonment . . . . .	...	1-1-76	3-07*			
Lahori Gate Cabin to Brewery Cabin at Delhi . . . . .	...	...	0-94			
<b>Total branches</b> . . . . .	...	...	140-17		1901	1,648
					1902	1,648
					1903	1,649
<b>TOTAL RAJPUTANA SECTION</b> . . . . .	...	...	...	719-92		
<b>MALWA SECTION—</b>						
<i>Main line—</i>						
Khandwa to Sanawad . . . . .	8-1-72	1-2-74	34-25			
Sanawad to Mortakka . . . . .		1-4-74	3-50			
Mortakka to Ohoral . . . . .	20-1-75	20-1-75	20-50			
Ohoral to Bhow . . . . .		1-1-78	15-69			
Bhow to Indore . . . . .	29-10-73	3-8-76	13-00			
Indore to Fatehabad . . . . .		3-8-76	25-23			
Fatehabad Junction to Rutlam . . . . .	5-10-77	11-7-78	49-75			
Rutlam to Jaora . . . . .		25-2-80	20-50			
Jaora to Mandasaur . . . . .	30-4-79	8-4-80	31-75			
Mandasaur to Neemuch . . . . .		2-7-80	30-25			
Neemuch to Nimbahera . . . . .	14-4-74	10-3-81	16-40			
Nimbahera to Chitorgarh . . . . .		19-8-81	17-65			
Chitorgarh to Nasirabad . . . . .	14-4-74	1-12-81	100-65			
Nasirabad to Ajmere . . . . .		14-2-76	14-15			
<b>Total main line, Malwa section</b> . . . . .	...	...	392-27			
<i>Branch on Malwa section—</i>						
<i>Ujjain branch—</i>						
Fatehabad to Ujjain . . . . .	29-10-73	3-8-76	12-00			
Ujjain branch extension across the Sipra river to Ujjain city . . . . .	8-12-82	1-3-84	2-88†			
<b>Total Branch</b> . . . . .	...	...	14-88			
<b>TOTAL MALWA SECTION</b> . . . . .	...	...	...	407-15		
<b>Carried ove.</b> . . . . .	...	...	...	1,127-07		

\* Of this, the length on the Jumna bridge is of mixed (5' 6" and 3' 3 3/4") gauges.

† Includes 2-10 miles, 5' 6" gauge, from Sipra Junction to station opened in 1899.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 166.]

Number <sup>Main head 3</sup> Sub-heads (a) to (c). BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—contd.

3. (k) Rajputana-Malwa railway (3' 3½" gauge)—contd.

Progress in opening—conold.

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
<b>CAWNPORE-ACHNERA SECTION—</b>			...	1,127·07
Brought forward . . . . .	...	...	...	...
<i>Main line—</i>				
Cawnpore to Kanauj . . . . .	13-10-73	15-12-80	49·51	
Kanauj to Farakhabad . . . . .		1-2-81	36·50	
Farakhabad to Kasganj . . . . .	13-7-83	14-4-84	67·00	
Kasganj to Hathras . . . . .		1-7-84	34·00	
Hathras to Muttra . . . . .	April 1874	19-10-75	29·00	
Jumna bridge . . . . .	July 1882	1-7-84	1·00	
Muttra to Achnera . . . . .	Feb. 1880	7-11-81	22·33	
<b>Total main line, Cawnpore-Achnera section</b> . . . . .	...	...	239·34	
<i>Branches on Cawnpore-Achnera section—</i>				
Brahmavart branch . . . . .	18-3-84	10-11-85	5·00	
Soron branch . . . . .	16-3-83	4-1-85	9·00	
Brindaban branch . . . . .	4-5-88	26-8-89	7·32	
<b>Total branches</b> . . . . .	...	...	21·32	
<b>TOTAL CAWNPORE-ACHNERA SECTION</b> . . . . .	...	...	...	260·66
<b>REWARI-BHATINDA-FAZILKA SECTION—</b>				
<i>Main line—</i>				
Rewari to Hissar . . . . .	18-9-81	20-3-83	89·00	
Hissar to Sirsa . . . . .	8-10-82	1-4-84	50·50	
Sirsa to Kot Kapura . . . . .		1-10-84	72·07	
Kot Kapura to Fazilka . . . . .		1-1-85	50·00	
<b>TOTAL REWARI-BHATINDA-FAZILKA SECTION</b> . . . . .	...	...	...	261·57
<b>TOTAL OPEN MILEAGE, RAJPUTANA-MALWA RAILWAY</b> . . . . .	...	...	...	1,649·30
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>				
Bewari to Phulera . . . . .	20-12-01	†1-1-06	133·32	
<b>Total lines under construction</b> . . . . .	...	...	...	133·32
<b>GRAND TOTAL, RAJPUTANA-MALWA RAILWAY PROPER</b> . . . . .	...	...	...	1,782·62
<b>DOUBLE LINE, RAJPUTANA SECTION—</b>				
Agra Fort to Agra Cantonment . . . . .	...	11-8-73	1·74	
Second track at Delhi . . . . .	...	25-12-02	1·78	
<b>Total double line</b> . . . . .	...	...	2·92	

## Details of construction—

**Permanent-way.**—The permanent-way consisted originally of 36 lb. and 40 lb. flat-footed iron rails laid on transverse deodar and creosoted pine sleepers. The 36 lb. iron rails have all been replaced by 41½ lb. flat-footed steel rails, which have again been replaced by 50 lb. steel flat-footed rails on the main line except in some station yards. The creosoted half-round pine sleepers with which the road was first laid have been replaced by deodar sleepers. On the line from Cawnpore to Raya 41½ lb. flat-footed steel rails are laid on deodar sleepers and from Raya to Achnera 50 lb. flat-footed steel rails on deodar sleepers. On the Rewari-Bhatinda-Fazilka line 41½ lb. flat-footed steel rails are laid on deodar and Denham-Olpherts' plate sleepers. On the Malwa section, from Ajmer to Rutlam, the rails are mixed 41½ lb. steel and 40 lb. iron; from Rutlam to Mertakka the rails are 50 lb. steel except in station yards; and from Mertakka to Khandwa the rails are mixed 41½ lb. steel and 40 lb. iron.

**Ballast.**—The line is ballasted throughout with stone, kunkur or sand.

**Fencing.**—The total length of line fenced on the Rajputana section is 660 miles, or about three-fourths of the whole section. The Malwa section is fenced for 93½ miles including the ghats between Mhow and Kalakund and at stations. The Cawnpore-Achnera section is fenced on both sides for 145½ miles on the main line, except for 7½ miles which are fenced on one side only. The Soron branch is fenced for 3½ miles and the Brindaban branch for 3½ miles. The Rewari-Bhatinda-Fazilka section is fenced for about 113½ miles and at stations.

**Curves.**—There are no curves with a radius of less than 1,000 feet.

**Gradients.**—The ruling gradient is 1 in 150, except on the Malwa section, between Khandwa and Kalakund where it is 1 in 100 and between Kalakund and Patalpani where it is 1 in 40.

## Terms of contracts—

The railway is worked under the following contracts:—

**Contracts of—**24th September 1884 (between the Secretary of State and the Bombay, Baroda and Central India Railway Company) for maintaining and working the Rajputana-Malwa railway.

16th March 1888.—Contract supplemental to that of 1884 for maintaining and working the Cawnpore-Achnera railway.

\* Of this 26·38 miles, between Kot Kapura and Bhatinda, are of mixed (3' 6" and 3' 3½") gauges.  
† Probable date of opening.

Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head \*</sup> <sub>Sub-heads (a) to (c).</sub> BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—*contd.*

3. (k) Rajputana-Malwa railway (3' 3½" gauge)—*contd.*

Terms of contracts—*consolid.*

8th November 1889.—Contract supplemental to that of 1884 for maintaining and working the Brindaban branch.

1st February 1901.—Contract modifying that of 1884.

The general conditions of the contracts are as follows :—

*Government aid.*—The line is the property of the State.

*Currency of contracts.*—The duration of the contracts is up to the 31st December 1905.

*Power of company to surrender contracts.*—Nil.

*Terms of working.*—The working expenses of the system (which may include any single item of capital expenditure not exceeding Rs. 1,000 classed as a 'Minor Work,' subject to a maximum charge on such account of Rs. 20 per mile of line open in each half-year, and a payment of Rs. 40 for every mile of line open to traffic to be made half-yearly to Government for supervision), excluding 2' and 2' 6" gauge lines, are pooled, and divided between the component parts of the system in proportion to the gross earnings of each. The net earnings thus arrived at of the Rajputana-Malwa, 3' 3½" gauge, and Godhra-Rutlam-Nagda, 5' 6" gauge, railways, are paid in full to Government.

*Rates and fares.*—Maximum and minimum rates and fares have been fixed within which the Company are authorised to vary the rates.

Statistics of working—

TABLE I.\*

Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Company's share of net traffic receipts.	Gain or loss to the State.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
1879 . . . . .	7,06,47,354	88,64,997	15,41,903	2.18	28,43,439	...	-38,01,586
1880 . . . . .	8,38,87,014	59,12,511	17,33,714	2.07	35,81,449	...	-18,47,735
1881 . . . . .	9,80,48,645	94,70,410	35,95,044	3.86	87,48,505	...	-1,52,461
1882 . . . . .	9,94,88,933	1,14,82,614	52,84,668	5.31	88,74,919	...	+14,09,749
1883 . . . . .	11,08,57,933	1,35,64,166	63,39,208	5.72	40,74,808	...	+22,64,400
1884 . . . . .	11,92,08,595	1,46,20,446	61,92,677	5.19	48,90,548	...	+18,02,129
1885 . . . . .	12,22,63,117	1,73,00,501	79,71,964	6.52	49,10,879	...	+30,61,585
1886 . . . . .	12,80,59,407	1,82,98,610	89,55,549	6.99	51,72,731	6,28,054	+31,54,764
1887 . . . . .	12,87,69,487	1,65,28,203	81,24,547	6.31	57,86,578	5,06,190	+24,31,779
1888 . . . . .	12,96,59,656	1,86,14,714	96,31,727	7.43	52,27,345	4,99,908	+39,04,474
1889 . . . . .	13,02,53,556	1,99,80,005	91,32,788	7.01	52,48,893	8,56,110	+30,27,785
1890 . . . . .	13,00,01,510	1,74,28,281	86,42,525	6.65	52,61,288	6,57,951	+27,23,236
1891 . . . . .	13,17,20,440	2,17,89,570	1,23,17,065	9.35	53,13,844	8,73,835	+61,24,386
1892 . . . . .	14,34,24,072	2,24,00,454	1,32,14,774	9.21	56,14,176	13,43,763	+62,54,835
1893 . . . . .	14,30,08,325	2,26,38,265	1,33,25,640	9.32	57,00,808	13,24,918	+62,99,914
1894 . . . . .	14,72,89,588	2,51,44,200	1,54,75,342	10.51	58,77,844	15,63,148	+80,34,350
1895 . . . . .	15,55,56,871	2,45,42,974	1,44,02,358	9.57	59,78,606	16,21,685	+68,02,117
1896 . . . . .	15,03,08,348	2,10,21,002	1,13,79,807	7.57	60,63,242	9,98,351	+43,23,214
1897 . . . . .	14,94,51,054	1,84,74,358	1,00,97,008	6.76	60,48,581	5,09,720	+35,38,707
1898 . . . . .	15,03,74,730	2,23,17,815	1,19,05,991	7.91	60,77,309	9,53,967	+48,74,715
1899 . . . . .	15,14,26,773	2,60,94,541	1,47,30,148	9.73	60,92,659	9,92,764	+76,45,126
1900 . . . . .	15,31,25,211	2,91,75,054	1,60,55,050	10.48	61,35,151	21,67,610	+77,52,289
1901 . . . . .	15,43,58,624	2,78,62,298	1,43,89,645	9.65	61,89,498	13,785	+86,86,362
1902 . . . . .	15,64,35,445	2,58,96,694	1,36,25,409	8.65	62,80,315	...	+73,45,042
1903 . . . . .	15,78,84,717	2,27,25,664	1,12,42,960	7.18	62,84,957	5,644	+50,51,759

\* Includes the Godhra-Rutlam-Nagda railway.

**APPENDIX 38—contd.**  
[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

**Appendix 38.**  
**History of railways.**

*History of railways constructed and in progress.*

[For Index see page 168.]

Number Main head 3 **BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—contd.**  
Sub-heads (a) to (c)

**3 (k) Rajputana-Malwa railway (3' 3½" gauge)—concl'd.**  
Statistics of working—concl'd.

TABLE II.

Calendar year.	Rajputana-Malwa, 3' 3½".		Holkar and Sindia-Neemuch, 3' 3½".		Western Rajputana, 3' 3½".		Rawari-Ferozepore, 3' 3½".		Muttra-Hathras, 3' 3½".		Cawnpore-Farukhabad, 3' 3½".		Muttra-Achnera, 3' 3½".		Cawnpore-Achnera, 3' 3½".		Godhra-Rutlam-Nagda, 5' 6".	
	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.
	Rs.		Rs.			Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
1873	82	96.59	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1874	69	80.37	60	84.02	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1875	98	64.04	123	91.71	...	...	...	...	108	58.18	...	...	...	...	...	...	...	...
1876	114	65.40	99	92.87	...	...	...	...	55	57.74	...	...	...	...	...	...	...	...
1877	180	67.99	86	76.86	...	...	...	...	66	54.86	...	...	...	...	...	...	...	...
1878	136	61.97	122	67.50	...	...	...	...	65	53.33	...	...	...	...	...	...	...	...
1879	153	66.74	128	74.53	86	86.08	...	...	83	54.97	...	...	...	...	...	...	...	...
1880	152	66.88	118	74.74	151	85.79	...	...	89	57.35	18	233.15	...	...	...	...	...	...
1881	189	60.41	132	69.11	...	...	...	...	90	69.19	65	69.76	39	89.01	...	...	...	...
1882	183	58.07	...	...	...	...	...	...	84	76.97	80	67.86	57	86.42	...	...	...	...
1883	219	52.18	...	...	...	...	75	81.28	...	...	...	...	...	...	80	63.98	...	...
1884	223	56.92	...	...	...	...	96	67.28	...	...	...	...	...	...	81	69.17	...	...
1885	224	52.81	...	...	...	...	...	...	...	...	...	...	...	...	70	87.87	...	...
1886	212	50.27	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1887	191	50.84	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1888	215	48.26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1889	230	45.82	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1890	200	50.41	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1891	251	43.47	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1892	257	41.01	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1893	259	41.72	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50	41.61
1894	285	38.19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	106	40.64
1895	269	46.29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	184	57.01
1896	227	44.35	...	...	...	...	...	...	...	...	...	...	...	...	...	...	189	62.27
1897	212	46.60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	146	72.02
1898	241	42.83	...	...	...	...	...	...	...	...	...	...	...	...	...	...	181	51.14
1899	285	42.06	...	...	...	...	...	...	...	...	...	...	...	...	...	...	172	58.34
1900	317	43.18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	219	46.84
1901	313	46.29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	156	45.15
1902	291	47.54	...	...	...	...	...	...	...	...	...	...	...	...	...	...	140	46.27
1903	253	49.16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	147	48.29

**3 (l) Vijapur-Kalol-Kadi railway (3' 3½" gauge)—**

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Vijapur to Kalol . . . . .	23-5-99	10-6-02	29.44		1902	29
Kalol to Kadi . . . . .	29-3-01	13-7-03	11.93		1903	41
TOTAL . . . . .	...	...	...	41.37		

Details of construction—

*Permanent-way.*—16 miles are laid with 41½ lb. flat-footed steel rails and 25 miles with 40 lb. flat-footed iron rails on deodar sleepers.

*Ballast.*—On the Vijapur-Kalol section, the line is ballasted with broken stone ballast, 4 cubic feet per foot run from mile 0.16 to 16.25 and from mile 25 to 29; and kunkur ballast from mile 16.25 to 25 and at all station yards. The Kalol-Kadi section is ballasted with shingle ballast only.

*Fencing.*—Fencing is provided from Kalol to Randheja and at station yards.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradient.*—The ruling gradient is 1 in 150.

\* Includes the Muttra-Hathras, Cawnpore-Farukhabad and Muttra-Achnera railways.



**Appendix 38.**  
History of railways.

**APPENDIX 38—contd.**

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number Main head 3 **BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—contd.**  
Sub-heads (a) to (e)

**3 (l) Vijapur-Kalol-Kadi railway (3' 3½" gauge)—concl'd.**

**Terms of contracts—**

The railway is the property of the Baroda State and is worked under the following—

*Agreement of—*23rd November 1903 (between the Government of His Highness the Gaekwar of Baroda and Bombay, Baroda and Central India Railway Company) for working.

*Contract of—*1st February 1901 (between the Secretary of State and the Bombay, Baroda and Central India Railway Company) as to percentage of working charges.

The terms of working are the same as on the Petlad-Cambay railway (Anand-Tarapur section).

**Statistics of working—**

TABLE I.					TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percent. on Capital outlay.	Earnings per mile per week.	Pro: of ex to earnings
	Rs.	Rs.	Rs.		Rs.	
1899 . . . . .	7,534	...	...	...	...	...
1900 . . . . .	29,885	...	...	...	...	...
1901 . . . . .	6,60,716	...	...	...	...	...
1902 . . . . .	10,47,188	19,514	9,226	1.18	23	52.72
1903 . . . . .	11,84,246	56,916	28,782	2.43	31	49.43

**3 (m) Gaekwar's Dabhoi railway (2' 6" gauge)—**

**Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Miyagam to Dabhoi . . . . .	21-3-72	8-4-78	20.00		1873	} 20 40 57 60 59 72 79 88
Dabhoi to Chaudod . . . . .	27-11-77	15-4-79	10.62		to	
Dabhoi to Bahadarpur . . . . .		17-9-79	9.64		1878	
Dabhoi to Goya Gate . . . . .	29-1-79	1-7-80	37.00		1879	
Goya Gate to Vishvamitri . . . . .		24-1-81	1.63		1880	
Bahadarpur to Bodeli . . . . .	Sept. 1888	16-6-90	12.77		1881	
Vishvamitri to Padra . . . . .	28-8-95	1-7-97	7.14		1882	
Padra to Mobha . . . . .	18-1-02	10-7-03	9.20		to	
TOTAL OPEN MILEAGE . . . . .	...	...	...	88.00	1889	
LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—					1890	
Mobha to Kanjat . . . . .	24-1-03	*31-5-04	6.49	6.49	to	
GRAND TOTAL . . . . .	...	...	...	94.49	1896	
					1897	
					to	
					1902	
					1903	

**Details of construction—**

*Permanent-way.*—The line was laid originally with 30 lb. iron rails for 20 miles, and with 30 lb. and 31 lb. steel rails for 39.25 miles and 12.50 miles, respectively, on wooden sleepers. The renewals are being made with 31 lb. steel rails. The Vishvamitri-Mobha section is laid with 31 lb. steel rails on wooden sleepers.

*Ballast.*—The line is ballasted throughout with stone, kunkur or sand.

*Fencing.*—There is no fencing, except what has been put up by the villagers themselves.

*Curves.*—There are no curves with a radius of less than 500 feet.

*Gradients.*—The ruling gradient is 1 in 400.

**Terms of contracts—**

The railway is worked under—

*Agreement of—*1st January 1897 (between the Government of His Highness the Gaekwar of Baroda and the Bombay, Baroda and Central India Railway Company) for working.

\* Probable date of opening.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number  $\frac{\text{Main head 3}}{\text{Sub-heads (a) to (o)}}$  BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—contd.

## 3 (n) Gaekwar's Dabhoi railway (2' 6")—concl'd.

## Terms of contracts—concl'd.

The general conditions of the agreement are as follows:—

*Government aid.*—Nil. The line is the property of the Baroda State.*Currency of agreement.*—The agreement may be terminated at any time on one year's notice from either side to expire on the 30th June or 31st December.*Terms of working.*—The Company work the railway at actual cost, plus 12½ per cent. of total working expenses (but not less than Rs. 500 per mensem or more than Rs. 800 per mensem, in a half-year) for superintendence.*Rates and fares.*—The rates and fares are fixed from time to time by the Company with the approval of His Highness' Government, and as far as possible must conform generally with those in force on the Bombay, Baroda and Central India railway.

## Statistics of working—

TABLE I.					TABLE II.		
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Calendar year.	Earnings per mile per week.	Pro. of exp. to earnings.
	Rs.	Rs.	Rs.			Rs.	
1879	9,62,450	72,083	31,608	3.23	1873	21	98.34
1880	11,65,540	1,28,825	65,188	5.59	1874	32	75.78
1881	12,57,448	1,41,238	48,849	3.88	1875	33	78.11
1882	12,78,942	1,44,022	46,747	3.66	1876	38	75.85
1883	12,78,630	1,46,970	38,585	3.05	1877	45	78.20
					1878	43	62.42
					1879	46	56.15
1884	12,50,177	1,49,091	48,560	3.90	1880	51	49.44
1885	13,11,229	1,52,283	55,623	4.24	1881	46	65.41
1886	13,58,502	1,58,699	39,393	2.90	1882	47	67.54
1887	13,46,259	1,56,352	47,839	3.52	1883	48	78.75
1888	13,74,295	1,45,757	43,354	3.19	1884	49	67.43
					1885	50	63.47
					1886	50	74.37
1889	16,10,398	1,42,989	49,898	3.07	1887	51	69.73
1890	17,53,877	1,95,028	74,570	4.25			
1891	17,94,157	2,01,165	68,126	3.80	1888	48	69.31
1892	18,47,408	3,38,609	1,06,510	5.77	1889	47	65.45
1893	18,55,158	2,52,106	1,32,507	7.14	1890	57	61.76
					1891	54	66.13
					1892	64	55.36
1894	18,88,774	2,40,318	95,429	5.05	1893	68	47.44
1895	19,08,757	2,34,473	96,764	5.02	1894	65	60.29
1896	20,74,758	2,58,788	1,25,857	6.06	1895	63	58.73
1897	21,08,574	2,20,901	50,949	2.42	1896	69	51.44
1898	21,18,491	2,10,240	-26,592	...	1897	56	76.94
					1898	51	112.65
					1899	60	64.40
1899	21,17,586	2,45,974	87,571	4.14	1900	57	73.83
1900	21,17,528	2,35,281	61,606	3.44	1901	62	71.08
1901	21,14,302	2,53,936	73,427	3.47	1902	54	65.69
1902	22,84,329	2,22,573	76,367	3.62			
1903	23,60,528	2,60,550	* 7,467	0.32	1903	60	97.13

## (3) (n) Rajpipla railway (2' 6" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Anklesvar to Raj-Pardi ..	Oct. 1894	1-7-97	19.03		1897	19
Raj-Pardi to Umalla ..	Feb. 1898	19-1-99	4.95		1898	19
Umalla to Amletha ..		1-6-99	7.85		1899 to 1903	37
Amletha to Nandod ..		20-7-99	5.54			
TOTAL	...	...	...	37.37		

\* The decrease was due principally to the cost of 3 engines having been charged to Revenue.

**Appendix 38.**  
History of railways.

**APPENDIX 38—contd.**

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number Main head 3  
Sub-heads (a) to (e) **BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—concl'd.**

**3 (n) Rajpipla railway (2' 6" gauge)—concl'd.**

Details of construction—

*Permanent-way.*—The line is laid with 41½ lb. flat-footed iron rails on half-round jungle teak sleepers.

*Ballast.*—With the exception of a short length of gravel ballast, the line is ballasted with coarse river sand.

*Fencing.*—There is no fencing, except at station yards.

*Curves.*—There are no curves with a radius of less than 1,432 feet.

*Gradients.*—The ruling gradient is 1 in 150.

Terms of contracts—

The railway is worked under—

*Agreement of*—19th March 1900 between the Rajpipla State and the Bombay, Baroda and Central India Railway Company.

The general conditions of the agreement are as follows:—

*Government aid.*—Nil. The line is the property of the Rajpipla State.

*Currency of agreement.*—The agreement may be terminated by either party on the expiration of three years or the end of any calendar half-year thereafter, on one year's notice from either side.

*Terms of working.*—The Rajpipla State is debited with the actual cost of working; and in addition one per cent on the net earnings of the Rajpipla railway as contribution to the Provident Fund and 12½ per cent. on total working expenses (but not less than Rs. 300 per mensem or more than Rs. 800 per mensem) for superintendence.

*Rates and fares.*—To be fixed from time to time by the Company with the approval of the Rajpipla State; and to conform with those generally in force on the Bombay, Baroda and Central India railway.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Pro: of exp: to earnings.
	Rs.	Rs.	Rs.		Rs.	
1894 . . . . .	12,674	...	...	...	...	...
1895 . . . . .	77,265	...	...	...	...	...
1896 . . . . .	4,09,141	...	...	...	...	...
1897 . . . . .	7,55,792	5,705	—6,534	...	11	214.53
1898 . . . . .	11,08,333	10,624	—9,172	...	11	186.53
1899 . . . . .	18,07,820	35,809	8,478	0.65	22	76.32
1900 . . . . .	18,10,159	49,463	12,139	0.93	25	75.46
1901 . . . . .	18,06,822	47,182	10,487	0.80	24	77.77
1902 . . . . .	13,05,415	38,726	10,131	0.78	20	73.84
1903 . . . . .	13,04,281	44,830	10,674	0.82	28	76.19

**3 (o) Jaipur (Siwai-Madhapur) railway (3' 3½" gauge)—**

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Sanganer to Siwai-Madhapur in the Jaipur State . . . . .	2-12-97	...	72.85	72.85

The line is the property of the Jaipur State. Its completion has been deferred for want of funds. It has been proposed that the line, when completed, should be worked by the Bombay, Baroda and Central India Railway Company.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 4</sup> <sub>Sub-heads (a) to (e)</sub> EASTERN BENGAL STATE RAILWAY SYSTEM.

Lines comprising system.—The Eastern Bengal State railway system is made up of—

	Open line. Miles.	Under construction. Miles.	Total. Miles.
(a) Eastern Bengal State railway, Eastern and Southern sections (5' 6" gauge)	278.68	105.75	384.43
(b) Brahmaputra-Sultanpur Branch railway (3' 3½" gauge)	59.37	...	59.37
(c) Eastern Bengal State railway, Northern, Behar, Dacca and Kaunia-Dhubri sections (3' 3½" gauge)	584.41	195.87	780.28
Teesta-Kurigram branch and British section of the Santrabari Extension (2' 6" gauge)	34.78	...	34.78
(d) Mymensingh-Jamalpur-Jagannathganj railway (3' 3½" gauge)	52.70	...	52.70
(e) Cooch-Bihar railway (2' 6" gauge)	38.60	...	38.60
	<u>1,048.54</u>	<u>301.62</u>	<u>1,345.16</u>

## Running powers—

Foreign lines over home line:—

East Indian railway, Kidderpore Docks to Naihati and to Chitpur	34.50
Bengal Central railway, Dum Dum Junction to Canal Junction	1.61
"    "    "    Canal Junction to Calcutta	2.96
"    "    "    Canal Junction to Chitpur	3.00
"    "    "    Calcutta to Kidderpore Docks	7.31
	<u>48.38</u>

The line from Calcutta to Port Canning, which was the property of the Calcutta and South Eastern Railway Company, was purchased by the State on the 1st April 1868. The line from Calcutta to Goalundo was also purchased by the State from the Eastern Bengal Railway Company on the 1st July 1884; and on the same date the existing branch line from Poradaha to Damukdia was permanently amalgamated therewith. From the 1st April 1887 the Calcutta and South Eastern railway, the Eastern Bengal railway with the branch to Damukdia, the Northern Bengal (Sara to Siliguri, Parbatipur to Kaunia, Parbatipur to Dinajpore), the Kaunia-Dharila (Kaunia to Jatrojore and Mogalhat), the Dacca (Narayanganj to Mymensingh) and the Assam-Bihar (Manihari to Kasba) railways were amalgamated, and have been worked as one system known as the Eastern Bengal State railway system.

The Kaunia-Dharila branch was constructed by the Bengal Government out of Provincial revenues. At Dhubri a connection is made with the Assam steamer services run by the India General and River Steam Navigation Company. The Dacca section is connected with the Eastern section by a ferry worked by the India General Steam Navigation Company between Goalundo and Narayanganj ghat.

The Northern and Eastern sections are connected by a steam ferry worked by the railway between Sara ghat and Damukdia ghat.

The East Indian railway is connected with the Bengal system of railways by a ferry worked by the East Indian railway across the Ganges between Manihari and Sahebgunge. A branch line runs northwards from Katihar Junction through Purnea and Kasba to Anchra ghat on the Kosi, opposite Khanwa ghat on the Kosi extension of the Tirhoo railway. The Eastern Bengal State railway is also connected with the Bengal and North-Western railway at Katihar

## 4 (a) Eastern Bengal State railway, Eastern and Southern sections (5' 6" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<b>EASTERN SECTION—</b>			Miles.	Miles.		Miles.
<b>Main line—</b>						
Calcutta to Ranaghat	16-4-69	29-9-62	45.25		1862	12
Ranaghat to Jagati Junction		15-11-62	62.00		1863	13
Jagati Junction to 145th mile		1-1-71	87.82		1864	13
	1865-66				1865	13
<b>Total main line</b>	...	...	...	145.07	1866	13
<b>Branches—</b>						
Jagati Junction to river Ganges (Koochta branch)	...	16-2-64	3.77		1867	13
Koochta loop line	...	1-8-81	1.17		1868	13
Canal Junction to Chitpore (Chitpore branch)	12-4-73	25-8-73	1.83		1869	13
Portion in Chitpore yard for goods traffic	...	13-4-83	0.12		1870	13
Panochooria Junction to new Goalundo	...	23-10-98	6.38		1871	13
Mile 145 to Panochooria Junction	...	1-4-90	3.18			
Panochooria Junction to Shivarampore	} Feby. '97	20-10-98	8.77		1872	13
Shivarampore to Faridpore		9-4-99	7.43		1873	13
Belgachhi to the Ganges	} Feby. '96	27-10-98	2.30		1874	13
Bhydea Junction to Borat		7-6-97	3.17		1875	13
Churni Extension	...	1-1-02	1.50		1876	13
Extensions to Chitpore Terminus (Belgachhi to Cossipore)	} Mar. '01	1-3-03	0.68		1877	13
		1-9-03	0.98		1878	13
					1879	13
					1880	13
					1881	13
<b>Poradaha branch—</b>						
Poradaha to Bhairamara	4-4-76	19-1-78	11.79			
Bhairamara to Golabnuggur (Damukdia)	22-9-83	8-12-83	7.41			
Goalbathan Extension	...	1-1-02	2.28			
<b>Total branches</b>	...	...	...	62.79	1882	20
					1883	21
					1884	23
<b>TOTAL, EASTERN SECTION, CARRIED OVER</b>	...	...	...	207.86		

\* Includes the Poradaha branch which was amalgamated with the Eastern section from 1884.

Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 168.]

Number Main head 4 EASTERN BENGAL STATE RAILWAY SYSTEM—contd.  
Sub-heads (a) to (e)

4 (a) Eastern Bengal State railway, Eastern and Southern sections (5' 6" gauge)—contd.

Progress in opening—contd.

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Miles open.
Brought forward, total Eastern section	...	...	Miles. ...	Miles. 207.86		Miles
<b>SOUTHERN SECTION—</b>						
<i>Main line—</i>						
Calcutta to Champahati	...	2-1-62	15.00		1885	22
Champahati to Port Canning	...	15-5-63	12.79		1886	22
Junction with Eastern section	...	15-8-85	0.41		1887	22
Bansra diversion	...	5-3-00	0.25		1888	22
Bansra diversion extension	...	17-11-02	0.75		1889	22
<b>Total main line</b>	...	...	...	29.20	1890	24
<i>Branches—</i>					1891	24
<i>Diamond Harbour branch—</i>					1892	24
Sonarpur to Baraipur	9-9-80	10-6-82	5.30		1893	24
Baraipur to Magra Hat	...	12-12-82	9.55		1894	24
Magra Hat to Diamond Harbour	...	25-4-83	12.69			
Diamond Harbour towards Hara Fort	...	25-4-83	0.42		1895	24
<b>Total branches</b>	...	...	27.96	41.62	1896	24
<i>Budge Budge branch—</i>					1897	25
Ballygunge to Budge Budge	Nov. '88	1-5-90	13.66		1898	26
<b>TOTAL, SOUTHERN SECTION</b>	...	...	...	70.82	1899	26
<b>TOTAL OPEN MILEAGE, EASTERN BENGAL STATE EASTERN AND SOUTHERN SECTIONS</b>	...	...	...	278.68	1900	26
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>					1901	26
<i>Eastern section—</i>					1902	27
Prachocra Junction to river Ganges	12-2-86	...	76.00		1903	27
Kankurgachi Chord (Kankurgachi to Gobra)	19-2-02	*80-6-05	2.25			
Banaghat to Murshidabad	20-6-02	*Dec. 1904	75.00			
Murshidabad to Jeaganj	23-9-03	...	6.00			
Jeaganj to Lalgola	23-9-03	...	16.50			
<b>TOTAL LINES UNDER CONSTRUCTION</b>	...	...	105.75	105.75		
<b>GRAND TOTAL, 5' 6" GAUGE</b>	...	...	...	384.43		
<b>DOUBLE LINE, EASTERN AND SOUTHERN SECTIONS—</b>						
Calcutta to Naihati	July '84	1-8-86	23.22			
Naihati to Kanchrapara	May '91	21-3-87	0.26			
Kanchrapara to Banaghat	Oct. '91	20-4-92	4.69			
Banaghat to Aranghata	...	12-11-92	17.56			
Aranghata to Bogoola	...	7-8-97	5.50			
Bogoola to Shibnibah	...	17-9-97	6.75			
Shibnibah to Ramnagar	...	8-11-97	6.65			
Ramnagar to Poradaha	...	17-11-98	0.75			
Canal Junction to Chitpore	...	17-9-97	9.50			
Sealdah to Ballygunge	...	7-8-97	27.58			
Ballygunge to Dock Junction	...	13-4-88	1.88			
<b>TOTAL DOUBLE LINE, EASTERN AND SOUTHERN SECTIONS</b>	...	...	112.21			

Details of construction—

**Permanent-way.**—On the Eastern section the rails are double-headed steel, 73 lb., 75 lb. and 85 lb. to the yard on cast iron plate and sal sleepers. The Faridpur branch is laid with second hand iron rails, 72 lb. and 68 lb. to the yard, on timber sleepers. On the Damukdia branch, the old iron rails are being replaced by 73 lb. steel rails removed from the main line. The sleepers are mostly cast iron bowls. The Diamond Harbour and Budge Budge branches are laid with steel rails 64 lb. and 73 lb. to the yard, on cast iron sleepers, and the Canning branch with iron rails on cast iron and wooden sleepers.

**Ballast.**—The line is ballasted throughout with the exception of the Faridpur branch.

**Bridges.**—See Appendix 36.

**Fencing.**—The Eastern section is fenced throughout; and the total length of fencing provided on the Southern section, including the Budge Budge extension, is 52.07 miles. The Canning branch is unfenced.

**Curves.**—There are no curves with a radius of less than 1,000 feet.

**Gradients.**—The ruling gradient is 1 in 300.

**Terms of contracts.**—Nil. The line is owned and worked by the State.

**Statistics of working.**—See page 197.

\* Probable date of opening.  
† Constructed but not opened.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 4</sup> <sub>Sub-heads (a) to (e)</sub>. EASTERN BENGAL STATE RAILWAY SYSTEM—contd.4 (c) Eastern Bengal State railway, Northern, Behar, Dacca and Kaunia-Dhubri sections (3' 3½" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<b>NORTHERN SECTION—</b>						
<i>Main line—</i>						
Sara to Atrai . . . . .	12-2-74	19-1-78	38-75		1877	134
Atrai to Jalpaiguri . . . . .		28-8-77	134-25		1878	232
Jalpaiguri to Siliguri . . . . .		10-6-78	23-85		1879	244
Total main line . . . . .	...	...	196-85	...	1880	244
<i>Branches—</i>						
<i>Rungpore branch—</i>						
Parbatipur Junction to Shampur . . . . .	12-2-74	19-5-78	15-15		1882	246
Shampur to Rungpore . . . . .		2-7-78	7-50		1883	256
Rungpore to Kaunia . . . . .		1-8-79	11-28		1884	249*
Total Rungpore branch . . . . .	...	...	34-00	...	1885	334
<i>Dinapore branch—</i>						
Parbatipur to Chirir bandar . . . . .	28-11-81	1-7-83	8-98		1887	373
Chirir bandar to Dinapore . . . . .		16-5-84	8-75		1888	405
Total Dinapore branch . . . . .		...	...		18-73	1889
Teesta bridge at Kaunia and approaches . . . . .	6-8-97	1-4-01	4-42	...	1890	478
Total, branches . . . . .	...	...	57-09	...	1891	492
Total, Northern section . . . . .	...	...	...	253-94	1892	527
<b>BEHAR SECTION—</b>						
<i>Main line—</i>						
Manihari to Katihar . . . . .	...	1-4-87	14-09	...	1897	527
Katihar to Rayganj . . . . .	...	1-7-89	37-49	...	1898	527
Rayganj to Dinapore . . . . .	...	15-2-88	32-68	...	1899	527
Junction with the Bengal and North-Western railway at Katihar . . . . .	...	8-3-01	0-69	...	1900	528
Total main line . . . . .	...	...	84-95	...	1901	545
<i>Branches—</i>						
<i>Kori branch—</i>						
Katihar to Kasba . . . . .	...	1-4-87	22-10	...	1902	586
Kasba to Forbesganj . . . . .	...	1-7-89	36-81	...	1903	584
Forbesganj to Ancharaghat . . . . .	...	1-1-91	14-99	...		
Total Kori branch . . . . .	...	...	73-90	...		
<i>Barsoi-Kissenganj branch—</i>						
Barsoi to Kissenganj . . . . .	June '91	15-12-92	35-11	...		
Total branches . . . . .	...	...	109-01	...		
Total, BEHAR SECTION . . . . .	...	...	...	193-96		
<b>DACCA SECTION—</b>						
<i>Main line—</i>						
Narayanganj ghat to Dacca . . . . .	11-8-82	4-1-85	10-28			
Dacca to Jaydebpur . . . . .		1-8-85	19-65			
Jaydebpur to Gafargaon . . . . .		1-8-85	32-50			
Gafargaon to Mymensingh . . . . .		1-8-85	23-52			
Total, DACCA SECTION . . . . .	...	...	...	85-92		
<b>KAUNIA-DHUBRI SECTION—</b>						
<i>Main line—</i>						
Teesta Junction to Mogalhat . . . . .	Sept. '99	1-4-01	12-04			
Mogalhat to Gitaldaha Junction . . . . .		2-1-02	1-86			
Gitaldaha Junction to Dhubri . . . . .		28-9-02	36-69			
Total, KAUNIA-DHUBRI SECTION . . . . .	...	...	...	50-59		
<b>TOTAL MILEAGE OPEN, EASTERN BENGAL STATE RAILWAY, NORTHERN, BEHAR, DACCA AND KAUNIA-DHUBRI SECTIONS (3' 3½" GAUGE).</b>					584-41	
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>						
<b>NORTHERN SECTION—</b>						
<i>Dhubri-Gauhati extension—</i>						
Golokganj to Salmara Road . . . . .	31-10-02	† April '05	55-00			
Salmara Road to the Brahmaputra opposite Gauhat . . . . .		...	...		96-62	
<i>Kaunia-Bonarpara extension—</i>						
Kaunia to Bonarpara . . . . .	17-7-03	† 1-1-05	44-25	...		
Total lines under construction . . . . .	...	...	...	195-87		
<b>GRAND TOTAL (3' 3½" GAUGE)</b>					780-28	

\* Excludes the Poradaha branch transferred to the Eastern section from 1884.

† Portion of Kaunia-Dharila branch converted from 2' 6" gauge. Original dates of sanction and opening of the 2' 6" gauge line were 20th November 1875 and 6th February 1882, respectively. See also remarks under 4 (c) on the next page.

‡ Probable date of opening.

**Appendix 38.**  
History of railways.

**APPENDIX 38—contd.**

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 188.]

Number <sup>Main head 4</sup> <sub>Sub-heads (a) to (e)</sub> **EASTERN BENGAL STATE RAILWAY SYSTEM—contd.**

**4 (c) Eastern Bengal State railway, Northern, Behar, Dacca and Kaunia-Dhubri sections (3' 3½" gauge)—concl'd.**

**Details of construction—**

*Permanent-way.*—The rails are flat-footed, steel 41½ lb. and 50 lb. and iron 40 lb. to the yard, laid chiefly on *asna*, ironwood, teak, steel and cast iron sleepers.

*Ballast.*—The line is, with some few exceptions, ballasted throughout.

*Bridges.*—See Appendix 36.

*Fencing.*—The whole of the Northern section is fenced. The Dacca section is unfenced except at stations and for 1½ miles from Narayanganj. The Behar section is fenced throughout, with the exception of the Barsoi-Kissenganj branch.

*Curves.*—On the Kaunia-Dhubri section the sharpest curve has a radius of 716 feet and is 0.11 mile in length.

*Gradients.*—The ruling gradient is 1 in 162.

*Terms of contracts.*—The line is owned and worked by the State.

*Statistics of working.*—See page 197.

**4 (c) Eastern Bengal State railway, Teesta-Kurigram branch and British section of the Santrabari extension (2' gauge)—**

The Teesta-Kurigram branch was originally a portion of the 2' 6" gauge lines from Teesta Junction to Mogalhat and Jatrapur, known as the Kaunia-Dharla branch. The line from Teesta Junction to Mogalhat has been converted to the 3' 3½" gauge and shown on the previous page under the "Kaunia-Dhubri section." The line from Kurigram to Jatrapur has been abandoned.

**Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
<i>Teesta-Kurigram branch—</i>						
Teesta Junction to Kurigram . . . . .	...	18-7-81	14.99		1881	2
<b>TOTAL, TEESTA-KURIGRAM BRANCH</b> . . . . .	...	...	...	14.99	1882	3
					1883	3
<i>Santrabari extension of the Cooch Behar State railway (British section)—</i>						
South Bank of Kaljani river to Alipur Duar . . . . .	Dec. '97	18-1-00	0.64		1884	3
Alipur Duar to Raja Bhat Khawa . . . . .					1899	
Raja Bhat Khawa to Jhainti . . . . .					1900	
<b>TOTAL, SANTRABARI EXTENSION OF THE COOCH BEHAR STATE RAILWAY (BRITISH SECTION)</b> . . . . .	...	...	...	19.79	1901	41
					1902	35
					1903	35
<b>GRAND TOTAL (2' 6" GAUGE)</b> . . . . .	...	...	...	34.78		

**Details of construction—**

*Permanent-way.*—The rails are flat-footed. The Teesta-Kurigram branch is laid with steel rails, 25 lb. to the yard, on sal sleepers; and the British section of the Santrabari extension is laid partly with iron rails, 40 lb. to the yard, and partly with steel rails, 41½ lb. to the yard, on sal sleepers.

*Ballast.*—The line is unballasted.

*Fencing.*—The line is unfenced.

*Curves.*—Several curves with a radius of less than 1,000 feet occur on the Teesta-Kurigram branch, their radii varying from 425 to 955 feet with an aggregate length of 6,580 feet or 1.25 miles. On the Santrabari extension there is a curve of 637 feet radius.

*Gradients.*—The ruling gradient is 1 in 50.

*Terms of contracts.*—The line is owned and worked by the State.

*Statistics of working.*—See page 197.



APPENDIX 38—contd.

Appendix 38.  
History of railways.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 4</sup> Sub-heads (a) to (c). **EASTERN BENGAL STATE RAILWAY SYSTEM—contd.**  
4 (a) and (c) Eastern Bengal State railway (5' 6", 3' 3½" and 2' 6" gauge sections)—concl'd.  
Statistics of working—

TABLE I.\*

Calendar year.	Capital expenditure to end of each year.	Gross earnings.	Net traffic receipts.	Percentage on capital outlay.	Interest.	Annuity.	Company's share of surplus profits.	Gain or loss to the State.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
1879	6,23,44,476	60,22,272	25,79,814	4.14	28,51,165	...	3,67,326	-6,39,177
1880	6,33,72,354	66,91,060	33,75,186	5.33	29,27,692	...	5,34,950	-87,456
1881	6,39,51,905	75,05,736	42,86,406	6.70	29,50,922	...	8,24,125	+6,11,359
1882	6,50,12,846	85,79,404	47,17,459	7.26	27,92,607	...	8,95,329	+10,29,523
1883	7,01,85,023	80,73,465	47,10,716	6.70	29,48,783	...	4,96,223	+12,54,710
1884	6,58,68,060	78,12,979	24,80,526	3.77	15,92,486	8,50,920	...	+5,37,120
1885	7,31,60,273	72,85,916	25,25,336	3.45	21,82,794	7,22,920	...	-3,80,378
1886	8,00,56,752	82,78,918	30,89,720	3.86	24,34,239	19,04,750	...	-12,49,269
1887	8,11,53,166	94,30,399	45,04,732	5.55	41,71,008	14,90,152	...	-11,56,378
1888	8,58,09,629	1,05,19,210	55,25,424	6.44	28,33,744	20,11,011	...	+6,30,669
1889	9,79,71,516	1,11,76,674	61,91,625	7.04	30,18,703	20,43,953	...	+11,28,969
1890	10,00,68,626	1,14,78,382	60,70,323	6.07	30,96,150	18,14,110	...	+11,60,063
1891	10,31,46,023	1,26,75,440	65,32,100	6.33	23,61,166	19,48,193	...	+13,82,736
1892	10,60,47,429	1,15,56,446	62,33,727	5.88	38,86,181	16,53,922	...	+6,93,624
1893	10,68,29,000	1,20,51,147	66,35,198	6.21	39,53,310	16,49,185	...	+10,32,643
1894	10,78,52,885	1,40,15,728	83,53,559	7.78	41,01,624	18,91,850	...	+23,60,035
1895	10,71,92,182	1,45,09,739	89,74,474	8.37	41,50,415	18,72,565	...	+29,51,494
1896	10,97,80,613	1,50,31,670	90,02,286	8.20	41,06,132	17,56,150	...	+31,40,001
1897	11,47,69,205	1,47,62,233	80,60,612	7.02	42,80,503	16,53,278	...	+21,26,831
1898	11,78,54,619	1,47,17,879	83,35,064	7.07	43,89,356	15,75,020	...	+23,70,688
1899	12,16,49,777	1,56,12,436	83,01,033	6.82	45,00,276	15,62,391	...	+22,38,416
1900	12,58,52,617	1,71,00,460	92,46,424	7.35	47,02,516	15,66,769	...	+29,77,139
1901	13,19,95,226	1,65,99,440	83,08,231	6.29	41,11,665	23,37,123	...	+18,59,493
1902	13,99,82,381	1,78,93,098	91,48,340	6.54	44,25,883	23,39,895	...	+23,92,562
1903	14,91,79,763	1,81,52,429	88,57,094	5.94	47,10,867	23,33,377	...	+18,12,850

TABLE II.

Calendar year.	4 (a) EASTERN AND SOUTHERN SECTIONS.				4 (c) NORTHERN, BEHAR AND DACCA SECTIONS.							
	Eastern and Southern sections (5' 6" gauge).		Calcutta and Southern Eastern section (5' 6" gauge).		Northern Bengal State (3' 3½" gauge).		Kannia-Dharilla (2' 6" gauge).		Northern, Behar and Kannia-Dhubri sections including the Teesta-Kurigram branch and the British section of the Santrabari extension (3' 3½" and 2' 6" gauges).		Dacca section (3' 3½" gauge).	
	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.
1862	Rs. 94	55.59	Rs. 36	128.39	...	...	...	...	...	...	...	...
1863	149	48.43	38	131.07	...	...	...	...	...	...	...	...
1864	176	53.07	53	137.08	...	...	...	...	...	...	...	...
1865	233	43.98	75	114.32	...	...	...	...	...	...	...	...
1866	243	51.05	79	118.59	...	...	...	...	...	...	...	...
1867	279	48.71	64	133.60	...	...	...	...	...	...	...	...
1868	308	46.33	60	173.12	...	...	...	...	...	...	...	...
1869	313	50.29	55	145.54	...	...	...	...	...	...	...	...
1870	335	55.69	55	104.88	...	...	...	...	...	...	...	...
1871	270	56.01	40	90.82	...	...	...	...	...	...	...	...
1872	344	66.60	40	92.07	...	...	...	...	...	...	...	...
1873	377	49.08	70	102.56	...	...	...	...	...	...	...	...
1874	433	52.18	68	78.35	...	...	...	...	...	...	...	...
1875	356	62.16	71	80.48	...	...	...	...	...	...	...	...
1876	401	43.66	68	108.62	...	...	...	...	...	...	...	...
1877	529	41.07	79	81.74	20	140.29	...	...	...	...	...	...
1878	512	43.71	83	75.08	81	75.31	...	...	...	...	...	...
1879	494	45.97	92	66.44	101	99.96	...	...	...	...	...	...
1880	540	44.81	98	71.32	114	60.10	...	...	...	...	...	...
1881	621	40.91	104	66.48	137	51.23	...	...	...	...	...	...
1882	611	40.60	130	97.42	160	49.04	25	92.97	...	...	...	...
1883	466	50.14	109	54.97	169	49.20	39	81.49	...	...	...	...
1884	...	54.06	...	...	156	69.93	39	78.26	...	...	...	...
1885	380	61.25	...	...	153	70.16	31	107.29	...	...	47	141.12
1886	408	61.97	...	...	189	52.85	29	122.87	...	...	56	111.47
1887	268	52.23	...	...	...	...	...	...	...	...	...	...
1888	546	47.47	...	...	...	...	...	...	...	...	...	...
1889	563	44.60	...	...	...	...	...	...	...	...	...	...
1890	521	47.12	...	...	...	...	...	...	...	...	...	...
1891	562	43.61	...	...	...	...	...	181	55.48	...	93	62.10
1892	562	44.32	...	...	...	...	...	165	47.32	...	85	64.40
1893	529	43.74	...	...	...	...	...	182	45.17	...	96	62.41
1894	621	40.33	...	...	...	...	...	191	39.14	...	112	54.46
1895	649	35.97	...	...	...	...	...	199	40.29	...	120	51.46
1896	678	39.74	...	...	...	...	...	212	40.04	...	115	53.27
1897	678	46.48	...	...	...	...	...	195	42.44	...	114	55.91
1898	652	41.86	...	...	...	...	...	201	44.88	...	129	51.61
1899	649	43.30	...	...	...	...	...	218	42.21	...	131	55.71
1900	689	47.75	...	...	...	...	...	245	42.14	...	146	58.81
1901	678	50.69	...	...	...	...	...	225	46.91	...	157	65.11
1902	728	48.18	...	...	...	...	...	235	48.65	...	146	62.11
1903	707	50.27	...	...	...	...	...	239	50.14	...	144	73.21

\* Includes the Eastern, Southern, Northern, Behar, Dacca, Kannia-Dhubri, Teesta-Kurigram sections and the British section of the Santrabari extension.  
† Included with the Eastern and Southern sections.  
‡ Information not available.

Appendix 38.  
History of railways.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

## History of railways constructed and in progress.

[For Index see page 168.]

Number Main head 4 EASTERN BENGAL STATE RAILWAY SYSTEM—contd.  
Sub-heads (a) to (e)

## 4 (b) Brahmaputra-Sultanpur Branch railway (3' 3½" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE O AT THE END OF YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Miles open.
Santabar to Bogra	} Oct. '96 {	1-4-99	Miles. 24.50	Miles. 59.37	1899 1900 to 1903	} 5
Bogra to Dewantola		5-4-00	22.02			
Dewantola to Bonarpara		1-8-00	4.60			
Bonarpara to Fulchhati		1-9-00	8.25			
TOTAL	...	...	...	...	...	...

## Details of construction—

*Permanent-way.*—The rails are flat-footed, steel 41½ lb. and 50 lb. and iron 40 lb. to the yard, laid chiefly on sal, a ironwood, teak, steel and cast iron sleepers.

*Ballast.*—The line is, with some few exceptions, ballasted throughout.

*Fencing.*—The line is unfenced, except at stations and through the town of Bogra.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 162.

## Terms of contracts—

The railway is worked under the following contracts:—

*Contracts of*—3rd December 1896 (between the Secretary of State and the Brahmaputra-Sultanpur Branch Rail Syndicate) for the formation of a Company for the construction of the line.

8th January 1897 (between the Secretary of State and the Brahmaputra-Sultanpur Branch Rail Syndicate) for the subscription of capital for the construction of the line.

22nd February 1897 (between the Secretary of State and the Brahmaputra-Sultanpur Branch Rail Company) for the construction and working of the line.

The general conditions of the contracts are as follows:—

*Government aid.*—Interest is guaranteed at 3 per cent. on the Company's capital. Land was also provided on charge.

*Currency of contracts.*—Government may determine the contracts on 12 months' notice, either on the 31st Decen 1919, or at the end of a subsequent period of 10 years, or on the 31st December 1948, the Government paying, if contr are determined on the 31st December 1919, or at the expiration of any subsequent period of 10 years, a sum equal to times the average yearly net earnings during the five years prior to determination, not exceeding by more than 20 cent., or not being less than, the total capital expenditure; and if determined on the 31st December 1948 (50 yea paying the total amount of such capital expenditure.

*Power of Company to surrender contracts.*—Nil.

*Terms of working.*—Government charge 45 per cent. of the gross earnings for working expenses which may incl any single item of capital expenditure not exceeding Rs. 1,000 classed as a 'Minor Work' subject to a maximum cha on such account of Rs. 20 per mile in each half-year. After providing from the net earnings for repayment to Governm of interest at the rate of 3 per cent. per annum on the actual expenditure, the balance is divided in equal proportions betw Government and the Company.

The Company were also allowed, until the minimum dividend of 3 per cent. was earned by the line, Rs. 5, for each year for or towards the office expenses and the expenses of management; and also all such legal expenses as properly debitable to revenue.

*Rates and fares.*—To be arranged between Government and the working agency within the maxima and mi ma rates in force on the Eastern Bengal State railway.

## Statistics of working—

TABLE I.							TABLE II.			
Calendar year.	Capital expenditure to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Company's share of net traffic receipts.	Gain or loss to the State.	Earnings per mile per week.	Pro: exp: earnings	
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.		
1897	2,02,919	...	..	...	†	...	...	...	...	
1898	12,55,457	...	...	...	†	...	...	...	...	
1899	19,58,187	38,800	..	...	†	...	...	38	45	
1900	24,20,811	1,36,587	..	...	†	...	...	58	45	
1901	28,27,619	1,96,848	61,375	2.17	42,414	...	+18,981	64	45	
1902	29,17,898	2,40,424	1,32,238	4.53	86,750	9,490	+36,008	78	45	
1903	29,42,486	2,54,379	1,39,908	4.75	88,185	22,742	+28,981	82	45	

\* Paid over to the Company.

† Interest was charged to capital.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[ For Index see page 166.]

Number <sup>Main head 4</sup> <sub>Sub-heads (a) to (e)</sub> EASTERN BENGAL STATE RAILWAY SYSTEM—contd.4 (d) Mymensingh-Jamalpur-Jagannathganj Branch railway (3' 3½" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
Mymensingh to Singhjani	Novr. '86	15-10-98	Miles. 33·07	Miles. 52·70	1898	} Miles. 33
Singhjani to Jagannathganj		15-10-99	19·63		1899 to 1903	
TOTAL	...	...	...	...	...	...

## Details of construction—

*Permanent-way.*—The rails are flat-footed, steel 41½ lb. and 50 lb. and iron 40 lb. to the yard, laid chiefly on sal, asna, ironwood, teak, steel and cast iron sleepers.

*Ballast.*—The line is, with some few exceptions, ballasted throughout.

*Fencing.*—The line is unfenced except at stations and through the town of Mymensingh.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 162.

## Terms of contracts—

The Mymensingh-Jamalpur-Jagannathganj Branch railway is worked under the following contracts :—

*Contracts of*—6th January 1897 (between the Secretary of State and the India General Steam Navigation Company) for the construction and working of the Mymensingh-Jamalpur-Jagannathganj Branch railway.

3rd October 1899 (between the India General Steam Navigation Company, the India General Navigation and Railway Company and the Secretary of State) for the transfer of the domicile of the Mymensingh-Jamalpur-Jagannathganj Branch railway office from Calcutta to London.

The general conditions of the contracts are as follows :—

*Government aid.*—Government in respect of each year allow to the Mymensingh-Jamalpur-Jagannathganj Branch Railway Company, by way of rebate on the share attributable to the Eastern Bengal State railway of the receipts from traffic interchanged between the two railways, such a sum not exceeding in any year the net earnings from traffic except railway stores interchanged between the Eastern Bengal State railway system and this railway, as will, together with the net earnings of the Company for the year, make up an amount equal to interest for the year at a rate of 3½ per cent. per annum on the actual capital expenditure. Land has also been provided free of charge.

*Currency of contracts.*—Government may determine the contracts on 12 months' notice either on the 31st December 1919, or at the end of a subsequent period of 10 years or on the 31st December 1948, the Government paying, if contracts are determined on the 31st December 1919, or at the expiration of any subsequent period of 10 years, a sum equal to 25 times the average yearly net earnings, not including rebate payments, during the three years prior to determination, not exceeding by more than 20 per cent., or not being less than, the total capital expenditure; and if determined on the 31st December 1948 (50 years), the total amount of such capital expenditure.

*Power of Company to surrender contracts.*—Nil.

*Terms of working.*—After deduction of 45 per cent. of the gross earnings for working expenses (which may include any single item of capital expenditure, not exceeding Rs. 1,000 classed as a 'Minor Work' subject to a maximum charge on such account of Rs. 20 per mile of line open in each half-year) in which is included all such legal expenses of the Company as are properly debitable to revenue, the balance is payable to the Company.

*Rates and fares.*—To be arranged between Government and the working agency within the maxima and minima rates in force on the Eastern Bengal State railway.

## Statistics of working—

TABLE I.								TABLE II.	
Calendar year.	Capital outlay.	Gross earnings.	Net traffic receipts.	Percentage on capital outlay.	Rebate from E. B. S. Ry.	Total income.	Percentage of (7) on (2).	Earnings per mile per week.	Pro: of exp: to earnings.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
1896	Rs. 1,950	...	...	...	...	...	...	...	...
1897	5,54,688	...	...	...	...	...	...	...	...
1898	10,44,638	7,660	4,213	0·40	...	4,213	0·40	27	45·00
1899	16,11,248	66,499	36,575	2·27	...	36,575	2·72	35	45·00
1900	18,78,395	1,62,028	89,116	4·74	...	89,116	4·74	58	45·00
1901	20,84,346	1,67,756	92,265	4·43	...	92,265	4·43	60	45·00
1902	22,85,677	2,05,251	1,12,888	4·94	...	1,12,888	4·94	74	45·00
1903	22,01,173	2,22,325	1,24,993	5·68	...	1,24,993	5·68	82	45·00

\* After deducting expenditure incurred on terminals at Jagannathganj from gross earnings the percentage of working expenses is 48·91.

**Appendix 38.**  
History of railways.

**APPENDIX 38—contd.**

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[ For Index see page 168.]

Number <sup>Main head 4</sup> <sub>Sub-heads (a) to (e)</sub> **EASTERN BENGAL STATE RAILWAY SYSTEM—contd.**

**4 (e) Cooch Behar railway, (2' 6" gauge)—**

**Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year!	Mileage open.
			Miles.	Miles.		Miles.
<i>Main line—</i>						
Gitaldaha to Manshahi Junction . . . . .	28-9-91	15-9-93	18-82		1893 to 1897	} 1
Manshahi Junction to the town of Cooch Behar . . . . .	30-8-95	15-12-98	3-22			
Torsa bridge . . . . .	...	16-5-00	0-11			
Total main line . . . . .	...	...	...	22-15	1898	2
<i>Branch—</i>					1899	3
<i>Cooch Behar-Santrabari extension (Native State section)—</i>					1900 to 1903	} 3
Cooch Behar to temporary Alipur Duar (Kholta) . . . . .	20-12-97	15-4-99	10-96			
Temporary Alipur Duar (Kholta) to the south bank of the Kaljani river . . . . .		18-1-00	0-49			
Total Branch . . . . .	...	...	...	11-45		
<b>GRAND TOTAL . . . . .</b>	...	...	...	<b>33-60</b>		

**Details of construction—**

*Permanent-way.*—The Cooch Behar railway is laid for 19-55 miles with steel rails, 25 lb. to the yard; for 1-8 miles with steel rails, 41½ lb. to the yard, on pyinkado sleepers; and 12-22 miles with 40 lb. iron rails on sal sleepers.

*Ballast.*—The line is laid without ballast.

*Fencing.*—The line is unfenced except at stations.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 50.

**Terms of contracts—**

The Cooch Behar railway is worked under the following agreement :—

*Agreement*—of 15th June 1903 and having effect from the 1st January 1901 (between the Secretary of State and His Highness the Maharaja of Cooch Behar) for working.

The general conditions of the contract are as follows :—

*Government aid.*—The line is the property of the Cooch Behar State.

*Currency of contract.*—The Eastern Bengal State railway to maintain and work the Cooch Behar State railway for a period of five years from 1st January 1901.

*Terms of working.*—The Eastern Bengal State railway, for maintenance and working, to receive 40 per cent. of the gross earnings; provided that when the stock of the Eastern Bengal State railway is used for the conveyance of any traffic on the Cooch Behar railway, the Eastern Bengal State railway will receive and retain up to, but not exceeding 45 per cent. of the gross earnings obtained from the use of such stock. The percentage of working charges will cover the cost of 'New Minor Works' up to the limit of Rs. 30 per mile per annum.

*Rates and fares.*—The Eastern Bengal State Railway Administration have full control over rates and fares.

**Statistics of working—**

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Earnings per mile per week.	Pro: of exp: to earnings.
	Rs.	Rs.	Rs.		Rs.	
1891 . . . . .	14,685	...	...	...	...	...
1892 . . . . .	4,09,186	...	...	...	...	...
1893 . . . . .	6,65,172	5,848	-2,455	...	13	188-94
1894 . . . . .	7,14,318	40,280	8,576	1-20	35	78-71
1895 . . . . .	7,30,953	53,174	19,200	2-63	46	63-89
1896 . . . . .	7,66,734	70,128	38,570	5-03	61	45-00
1897 . . . . .	9,01,219	64,262	35,344	3-92	51	45-00
1898 . . . . .	10,32,938	66,124	6,687	0-65	57	45-00
1899 . . . . .	12,90,031	82,773	43,073	3-32	53	47-95
1899 . . . . .	12,83,006	94,792	51,602	4-02	50	43-41
1900 . . . . .	13,94,923	1,27,596	74,667	5-35	72	41-48
1901 . . . . .	13,95,766	1,24,741	74,452	5-33	71	40-31
1902 . . . . .	14,91,329	1,42,540	83,834	5-62	82	41-19

APPENDIX 38—contd.

Appendix 38.  
History of railways.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 168.]

Number Main head 5 **EAST INDIAN RAILWAY SYSTEM—**  
Sub-heads (a) to (d)  
Lines comprising system.—The East Indian railway system is made up of—

	Open line. Miles.	Under construction. Miles.	Total. Miles.
(a) East Indian railway (5' 6" gauge)	1,935.11	215.14	2,150.25
(b) Delhi-Umballa-Kalka railway (5' 6" gauge)	162.86	...	162.86
(c) South Behar railway (5' 6" gauge)	78.76	...	78.76
(d) Tarkesaur railway (5' 6" gauge)	22.23	...	22.23
<b>Total</b>	<b>2,198.46</b>	<b>215.14</b>	<b>2,413.60</b>

Running powers—

Home line over Foreign lines :—

	Miles.
Agra East Bank to Agra Fort, Rajputana-Malwa railway	1.00
Kidderpore Docks to Naihati and Chitpur, Eastern Bengal State railway	34.50
Moghal Sarai to Benares Cantonment, Oudh and Rohilkhand State railway	10.00
<b>Total</b>	<b>45.50</b>

Foreign lines over Home line :—

	Miles.
Bengal-Nagpur railway at Katni	0.30
" " " at Asansol	0.50
" " " at Howrah	1.00
Indian Midland railway, Agra to Tundla	12.75
" " " at Cawnpore	1.49
" " " at Manikpur	0.63
" " " at Katni	0.38
North Western and Oudh and Rohilkhand State railways, Ghaziabad to Delhi	13.00
<b>Total</b>	<b>30.05</b>

(a) East Indian railway proper (5' 6" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<b>Main line—</b>			Miles.	Miles.		Miles.
Howrah to Hooghly	January '51	15-8-54	23.23			
Hooghly to Pundooah		3-9-54	14.31		1854	38
Pundooah to Khana junction		3-2-55	36.94		1855	120
Khana junction to Baneesgunge		3-2-55	45.71		1856	120
Baneesgunge to Siarsol		21-7-63	1.70		1857	120
Siarsol to Sitarampur	Feby. '65	1-1-65	15.15			
Sitarampur to Luckeeserai junction		1-1-71	124.64			
Luckeeserai to Dinapore		17-11-62	82.42		1858	139
Dinapore to Moghal Sarai		22-12-62	125.92		1859	286
Moghal Sarai to Mirzapur		1-1-64	39.28		1860	370
Mirzapur to south bank, Jumna		4-4-64	52.64		1861	561
Jumna bridge to Allahabad		15-8-65	2.75		1862	877
Allahabad to Cawnpore		3-3-59	119.47			
Cawnpore to Etawah		1-7-61	86.46			
Etawah to Shikohabad		13-11-61	34.39		1863	933
Shikohabad to Tundla junction		1-4-62	22.92		1864	1,131
Tundla junction to Aligarh		1-8-63	48.56		1865	1,155
Aligarh to Chola (Bulandshahr Road)		1-4-64	35.54		1866	1,155
Chola to Delhi (south bank, Jumna)		1-8-64	41.27		1867	1,389
Delhi terminus		1-1-67	1.78			
			955.08		1868	1,380
					1869	1,380
<b>Loop line—</b>					1870	1,380
Khana junction to river Adjai	...	3-10-58	19.00		1871	1,530
River Adjai to Sainthia		3-9-59	25.12		1872	1,530
Sainthia to Tinpahar		15-10-60	76.12			
Tinpahar to Bhagalpur		1-11-61	69.12			
Bhagalpur to Jamalpur		10-2-62	32.62			
Jamalpur to Luckeeserai	17-11-62	28.41		1873	1,530	
			250.39		1874	1,530
					1875	1,530
					1876	1,530
					1877	1,530
<b>Total main and loop lines</b>				1,205.47		
<b>Branches on main line—</b>						
<b>Bhadreswar branch—</b>						
Bhadreswar junction to the river bank	...	6-12-82	2.60		1878	1,530
					1879	1,588
<b>Hooghly bridge branch—</b>					1880	1,600
Hooghly junction to Naihati	14-1-84	15-3-87	4.22		1881	1,600
					1882	1,603
<b>Indal loop—</b>						
Ondal to Babasole	July '82	1-5-64	2.03			
Babasole to Mangalpur		1-1-63	2.74			
Mangalpur to Toposi		2-2-63	2.65			
Toposi to Ikrah junction		15-4-94	2.42		1883	1,605
Ikrah junction to Gourangdi		1-6-95	14.16		1884	1,605
Gourangdi to Alipur	29-3-91	30-3-95	7.54		1885	1,611
			31.54		1886	1,611
					1887	1,610
<b>Ikrah branch—</b>					1888	1,610
Ikrah junction to the Ondal loop	July '82	15-4-94	8.92		1889	1,610
<b>Baria branch—</b>					1890	1,610
Sitarampur to Barakar	9-3-92	1-1-65	5.43		1891	1,610
Barakar to Katrasgarh	...	*20-5-94	33.80		1892	1,610
			39.23			
<b>Sitarampur-Damohani extension—</b>					1893	1,613
Mile 132 from Howrah to Sitarampur	13-7-99	15-4-02	6.99		1894	1,664
					1895	1,700
<b>Salanpur branch—</b>					1896	1,701
Salanpur to Shamdi	9-3-02	7-9-94	4.29		1897	1,705
		1-1-97	1.24			
			5.53		1898	1,712
					1899	1,711
<b>Chanch branch—</b>					1900	1,840
From mile 144 to Chanch	9-3-92	1-2-93	2.88		1901	1,938
	11-2-96	5-8-96	1.00		1902	1,923
			3.88		1903	1,935
<b>Carried over</b>			102.91	1,205.47		

\* The first 7 miles of this extension were worked for coal traffic from the 1st August 1893.

Appendix 38.  
History of railways.

APPENDIX 38—contd.

[ Appendices 4 (portion), 6, 7 and 47 in Report for 1902. ]

History of railways constructed and in progress.

[For Index see page 168.]

Number Main head 5 EAST INDIAN RAILWAY SYSTEM—contd.

Sub heads (a) to (d)

5 (a) East Indian railway proper (5' 6" gauge)—contd.

Progress in opening—contd.

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total
			Miles.	Miles.
Pandra branch— From mile 148½ on Jharia branch to Pandra	4-8-99	26-11-00	102·91	1,205·47
Damoodur branch— Dheria Joba to the Damoodur river	15-1-94	80-6-95 15-7-96	8·00 1·77	
Kushubares branch— Madhopur junction to Giridih	...	1-1-71	26·70	
Colliery lines— Katras-Kanoodih extension— Katrasgarh to Kanoodih	9-12-01	7-8-03	7·23	
Jharia-Dhanbaid Chord— Jharia to Dhanbaid	9-12-01	1-5-03	3·70	
Katras-Mulhera cross connection— Northern half of connection	9-12-01	15-8-03	0·67	
Mokamah Ghat branch— Mokamah junction to Mokamah Ghat	...	1-5-83	3·70	
Patna-Gya branch— Bankipore junction to Bankipore	13-2-78	2-6-79	0·25	
Bankipore to Jehanabad	13-2-78	21-4-79	28·95	
Jehanabad to Gya	13-2-78	2-6-79	29·22	
Barun-Daltonganj branch— Some East Bank (Barun) to Rajhara	16-5-97	3-5-02	58·42	
Rajhara to Daltonganj	16-5-97	15-12-02	67·30 10·72	
Dighaghat branch— Bankipore junction to Dighaghat	30-7-84	2-4-85	78·02 5·58	
Tarighat branch— Dildarnagar junction to Tarighat	11-7-78	5-10-80	12·00	
Moghal Sarai-Gya branch— Moghal Sarai to Gya	...	1-3-00 1-5-02	125·48 0·94	
Jubbulpore branch— Naini junction to Jubbulpore	Feb'y. '63	1-8-67	126·43 223·58	
Allahabad fort branch	...	9-8-59	2·34	
Cawnpore city branch	...	15-2-79	0·68	
Agra branch— Tundla junction to Agra East bank	...	1-4-62	13·35	
Hathras city branch	...	1-11-98	5·58	
Branches on loop line— Azimganj branch— Nalhati to Azimganj*	...	15-7-92	27·23	
Rajmehal branch— Tinpahar junction to Rajmehal	...	15-10-60	7·00	
Sakrighat branch— Sakrigali junction to the river Ganges	...	1-1-94	1·99	
Maharajpur branch	...	30-11-98	2·48	
Sultangunge branch	22-3-93	6-5-95	1·14	
Monghyr branch— Jamalpur to Monghyr	...	10-4-62	5·68	
Total branches	...	...	...	729·64
TOTAL OPEN MILEAGE, EAST INDIAN RAILWAY PROPER	...	...	...	1,935·11
LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION— Gya-Katrasgarh railway— Manpur to 0·87 mile beyond Gurpa (Plains section)	25-3-02	March 1906.†	25·25	
Mile 0·87 beyond Gurpa to Kodarma (Hill section)	20-6-02		19·19	
Kodarma to Hariharpur (Plateau section)	20-6-02		56·35	
Shikohabad-Farakhabad railway	...	...	99·79	
Colliery lines— Tasra siding	18-1-98	1-3-05†	65·82	
Chandore branch— Mile 170½ from Howrah on the Jharia branch to Chandore	1-11-01	...	1·75	
Ondal Sainthia Chord— Ondal to Sainthia	17-3-03	30-6-04†	4·16	
	...	...	5·91	
Total lines under construction	1-12-03	1-1-06†	43·62	
GRAND TOTAL, EAST INDIAN RAILWAY PROPER	...	...	...	2,150·25

\* This line was originally on the 4' 0" gauge, but was converted to 5' 6" gauge, and incorporated with the East Indian railway from 1892  
† Probable date of opening.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number  $\frac{\text{Main head 5}}{\text{Sub-heads (a) to (d)}}$  EAST INDIAN RAILWAY SYSTEM—contd.

5 (a) East Indian railway proper (5' 6" gauge)—contd.

Progress in opening—concl'd.

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.
			Miles.
<b>DOUBLE LINE—MAIN LINE AND BRANCHES—</b>			
Howrah to Serampore	...	10-3-57	11.74
Serampore to Chandernagore	...	1-2-58	8.38
Chandernagore to Hooghly	...	1-5-58	8.11
Hooghly to Magra	...	1-10-58	5.49
Magra to Pundooah	...	25-2-59	8.82
Pundooah to Burdwan	...	1-10-59	28.72
Burdwan to Khana	...	1-1-59	8.22
Khana to Durgapur	...	1-6-70	31.85
Durgapur to Raneegunge	...	2-9-70	14.36
Raneegunge to Sitarampur	...	19-12-70	16.85
Sitarampur to Luckeesarai	...	1-1-71	124.64
Luckeesarai to Burhee	...	22-6-60	9.82
Burhee to Barh	...	22-2-68	27.10
Barh to Futwah	...	11-1-68	25.87
Futwah to Dinapore	...	20-3-67	19.63
Dinapore to Bihta	...	13-8-38	10.93
Bihta to Arrah	...	23-3-70	13.50
Arrah to Buxar	...	13-8-63	42.67
Buxar to Dildarnagar	...	15-4-82	22.46
Dildarnagar to Zamania	...	20-5-82	8.59
Zamania to Sakaldiha	...	20-9-82	16.28
Sakaldiha to Moghal Sarai	...	10-3-82	11.49
Hooghly bridge branch	...	15-3-87	4.22
Sitarampur to Barakar	...	6-3-01	8.39
Ghaziabad to Shahadara	...	20-10-99	8.13
Shahadara to east side of Jumna bridge near Delhi	...	1-7-02	2.57
TOTAL DOUBLE LINE	...	...	493.33

## Details of construction—

**Permanent-way.**—The main line is laid with wooden and cast iron plate sleepers. The rails vary in weight from 74 lb. to 85 lb. to the yard. On the Ondal Loop, the rails are laid on timber sleepers and cast iron bowl and plate sleepers. On the Jharia branch, the rails are iron and steel and are laid on timber and cast iron plate sleepers. On the Giridih branch, the rails are laid on timber sleepers and cast iron bowl and plate sleepers. On the Patna-Gya branch, the first 29 miles are laid with 64 lb. rails. On the Moghal Sarai-Gya branch, double-headed 75 lb. rails are laid with cast iron chairs and timber sleepers. The Jubbulpore branch is laid with 75 lb. steel rails on timber and cast iron plate sleepers. The Azimganj branch is laid with 82 lb. rails on cast iron plate sleepers.

**Ballast.**—The line is ballasted throughout with stone.

**Tunnels.**—See Appendix 37.

**Bridges.**—See Appendix 36.

**Fencing.**—The line is double fenced throughout, excepting the Azimganj branch, and the Barakar-Katrasgarh section of the Jharia branch, which are unfenced, and also the Moghal Sarai-Gya branch which is fenced near villages, round station yards and for a short distance near each level crossing only.

**Curves.**—There are no curves with a radius of less than 1,000 feet.

**Gradients.**—The ruling gradient of the main line is 1 in 300 except between Raneegunge and Luckeesarai where it is 1 in 200 with a 1 in 100 banking section, between Simultala and Jhajha. The ruling gradient of the Loop line and the Jubbulpore branch is 1 in 200; of the Moghal Sarai-Gya branch, 1 in 400; of the Patna-Gya branch, 1 in 250; of the Jharia branch, 1 in 140; of the Azimganj branch, 1 in 100; and of the Ondal Loop and Kurhurbaree branches, 1 in 80.

## Terms of contracts—

The railway is worked under the following contracts:—

**Contracts of—**22nd December 1879.—East Indian Railway Company's principal contract.

10th November 1893.—Contract for the incorporation of the following State branches in the undertaking:—Ghaziipur (Dildarnagar to Tarighat); Bhadreswar (Bhadreswar junction to the right bank of the Hooghly); Mokameh (Mokameh junction to the Ganges); Digha Ghat (Bankipore junction to the right bank of the Ganges at Digha Ghat); Jharia (Barakar to the Jharia coal-fields); Toposi colliery (Toposi to Kharabad, Nundi to Panuria and Salaapur to Shamdi); Gya (Bankipore to Gya); and Azimganj (Nalhati to Azimganj).

26th February 1896.—As to debenture capital.

22nd November 1897.—Contract for the construction and working of the Moghal Sarai-Gya railway.

14th November 1899.—Contract modifying that of 1879.

The general conditions of the contracts are as follows:—

**Government aid.**—Government guarantee interest at 4 per cent. in sterling on £6,550,000 (being capital representing the deferred portion, i.e., one-fifth of the annuity payable under the terms of purchase). All capital is provided either by Government or by the Company by the issue of debentures or debenture stock, in such manner or on such terms as to interest or otherwise as the Secretary of State determines.

\* Of this, 2.20 miles (Boinchee to Debipur) are laid with a third track.



Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 168.]

Number Main head 5 **EAST INDIAN RAILWAY SYSTEM—contd.**  
Sub-heads (a) to (d)

5 (a) East Indian railway proper (5' 6" gauge)—contd.

Terms of contracts—contd.

*Terms of contracts.*—The lines were purchased from the East Indian Guaranteed Railway Company by the State on the 1st January 1880, and all the contracts then subsisting between the Secretary of State and that Company (except those relating to debentures or debenture stock) were determined. The purchase price was £32,750,000,\* and it was provided by the Purchase Act that this should be paid in the form of a terminable annuity of the amount of £1,473,750, payable from the 1st January 1880 to the 14th February 1953. One-fifth of the annuity was deferred, and the holders of this portion (representing a capital sum of £6,550,000), constitute the present East Indian Railway Company, which, since the purchase, has worked the railway for the Government under the contract of 1879 as modified by the contract of 1899. The deferred annuity holders receive, in lieu of the annuity, interest at 4 per cent. per annum on £6,550,000 and a share of the surplus profits of the railway. On the determination of the contract, the portion of the annuity that has been deferred will become payable for the period remaining up to the 14th February 1953.

*Currency of contracts.*—The contract of 1879 terminates on the 31st December 1929, but either party may determine the contract at the end of the 20th or at the end of any succeeding 5th year (computed from the 1st of January 1880) on giving two clear years' notice in writing to the other party of this intention.

*Note.*—Government relinquished their right to determine the contract at the end of the 20th year, and by mutual agreement the principal contract will not be determined before the 31st December 1919.

*Power of Company to surrender contract.*—See currency of contracts.

*Terms of working.*—After deducting working expenses (which may include any single item of capital expenditure not exceeding Rs. 1,000 classed as a 'Minor Work,' subject to a maximum charge on such account of Rs. 25,000 in each half-year and a payment of Rs. 40 for every mile of line open to traffic to be made half-yearly to Government for supervision) the surplus profits (after payment of interest on debentures, annuity, interest on deferred portion of annuity, interest due to Government on capital advances, etc., and contribution to the Provident Fund) up to a sum of 25 lakhs of rupees are divided in proportion of four-fifths to Government and one-fifth to the Company. Any excess over 25 lakhs of rupees is divided in proportion of fourteen-fifteenths to Government and one-fifteenth to the Company.

*Rates and fares.*—Certain maxima and minima rates and fares have been fixed within which the Company are permitted to vary rates.

Statistics of working—

TABLE I.

Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Annuity.	Company's share of net traffic receipts.	Gain or loss to the State.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
1879*	34,32,77,360	4,35,46,730	2,36,14,479	8'34	1,65,74,363	...	61,25,877	+ 59,14,239
1880	34,35,77,327	4,35,04,917	2,66,72,035	8'35	†1,98,06,263	...	17,72,690	+ 70,98,082
1881	34,87,63,677	4,54,11,472	3,08,35,036	8'34	31,05,426	1,73,92,000	20,63,867	+ 82,78,743
1882	35,07,21,455	4,71,17,594	2,96,57,086	8'46	32,81,764	1,73,92,000	17,88,073	+ 71,95,249
1883	35,24,91,804	4,94,67,065	3,11,50,980	8'64	38,16,170	1,72,57,772	19,99,731	+ 80,77,307
1884	35,57,38,760	4,38,38,714	2,73,22,003	7'68	35,58,035	1,78,50,459	11,72,323	+ 47,41,188
1885	35,85,96,619	4,63,86,989	3,30,16,980	9'21	38,18,262	1,79,75,714	16,29,502	+ 95,98,482
1886	36,06,85,918	4,66,70,853	3,05,13,359	8'46	39,91,104	1,89,50,137	14,97,276	+ 60,74,842
1887	36,12,14,631	4,60,65,661	3,13,34,263	8'67	40,70,944	1,92,13,333	15,67,252	+ 64,62,734
1888	36,09,27,530	4,54,36,902	3,03,35,075	8'40	40,73,297	2,03,43,530	11,64,693	+ 47,53,555
1889	36,19,22,300	4,49,57,901	2,94,05,230	8'12	41,84,108	2,09,60,000	8,91,347	+ 34,28,775
1890	36,31,22,758	4,40,57,665	2,98,26,815	8'24	41,83,278	2,08,43,530	10,37,019	+ 42,62,988
1891	36,15,18,827	4,56,87,001	3,60,37,028	9'97	43,93,426	1,86,94,054	26,45,892	+ 1,03,04,156
1892	36,24,97,506	4,91,41,600	3,48,16,719	9'60	37,25,754	2,06,47,164	20,88,760	+ 83,55,041
1893	36,91,20,357	5,08,44,654	3,60,94,293	9'78	41,26,889	2,34,46,780	17,04,125	+ 68,16,499
1894	37,24,36,356	5,26,89,485	3,64,26,405	9'78	43,87,988	2,43,89,582	15,39,767	+ 61,59,068
1895	37,82,18,020	5,41,50,856	3,73,34,726	10'00	45,73,681	2,61,01,122	14,29,078	+ 57,30,815
1896	38,27,66,003	5,40,69,142	3,67,77,682	9'61	46,80,562	2,58,59,455	12,45,738	+ 49,81,932
1897	39,39,91,173	5,88,28,013	4,14,93,469	10'53	48,20,238	2,47,34,406	23,87,763	+ 95,51,062
1898	40,71,94,336	5,97,96,060	4,08,07,269	10'02	50,46,514	2,32,64,533	24,99,244	+ 89,96,978
1899	42,70,40,208	6,35,45,974	4,26,60,018	9'99	54,64,902	2,21,45,516	30,09,920	+ 1,20,39,680
1900	44,28,43,540	6,84,74,972	4,47,15,571	10'10	60,18,054	2,15,60,963	18,09,104	+ 1,68,27,450
1901	45,66,59,069	7,03,96,636	4,57,13,311	10'01	65,46,878	2,16,82,360	18,51,450	+ 1,56,32,623
1902	47,06,40,852	6,77,38,713	4,29,30,833	9'13	70,34,492	2,16,46,868	16,19,965	+ 1,26,79,508
1903	48,79,61,454	6,99,72,799	4,63,98,422	9'52	74,46,371	2,16,15,000	16,82,231	+ 1,56,54,820

\* Worked by the East Indian Guaranteed Railway Company.

† Including annuity charges, which cannot be separated from interest charges.



## APPENDIX 38—contd.

[ Appendices 4 (portion), 6, 7 and 47 in Report for 1902. ]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number 5 EAST INDIAN RAILWAY SYSTEM—contd.  
Main head  
Sub-heads (a) to (d)

5 (a) East Indian railway proper (5' 6" gauge)—conold.

Statistics of working—conold.

TABLE II.

Calendar year.	East Indian (5' 6" gauge).		Patna-Gya (5' 6" gauge).		Nalhati (4' 0" gauge).		Dildarnagar Ghazipur (5' 6" gauge).		Calendar year.	East Indian (5' 6" gauge).		Patna-Gya (5' 6" gauge).		Nalhati (4' 0" gauge).		Dildarnagar Ghazipur (5' 6" gauge).		
	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.		Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.
	Rs.		Rs.		Rs.		Rs.			Rs.		Rs.		Rs.		Rs.		Rs.
1853	...	...	...	...	...	...	...	...	1878	507	35.69	...	...	64	79.41	...	...	
1854	131	62.18	...	...	...	...	...	...	1879	552	32.86	121	55.84	65	67.56	...	...	
1855	108	51.97	...	...	...	...	...	...	1880	549	33.04	162	56.18	49	105.33	...	...	
1856	167	40.62	...	...	...	...	...	...	1881	578	31.85	173	65.11	47	79.20	56	128.33	
1857	232	38.12	...	...	...	...	...	...	1882	601	36.94	184	60.51	51	73.05	63	99.52	
1858	279	46.49	...	...	...	...	...	...	1883	630	36.95	158	51.93	57	69.63	73	85.24	
1859	258	44.77	...	...	...	...	...	...	1884	556	37.61	174	57.48	55	99.84	80	49.87	
1860	231	48.36	...	...	...	...	...	...	1885	589	35.25	174	52.52	54	82.08	75	58.97	
1861	240	46.49	...	...	...	...	...	...	1886	591	34.59	180	52.01	59	85.29	75	52.28	
1862	192	53.81	...	...	...	...	...	...	1887	533	31.70	178	46.53	65	70.57	76	52.05	
1863	222	55.01	...	...	...	...	...	...	1888	567	33.24	168	47.97	74	78.39	77	46.45	
1864	258	50.79	...	...	36	48.88	...	...	1889	557	34.59	175	48.70	78	78.18	74	91.13	
1865	311	44.82	...	...	41	63.28	...	...	1890	538	31.35	174	45.80	71	78.01	...	...	
1866	374	44.24	...	...	36	105.15	...	...	1891	615	27.21	204	42.76	66	62.97	...	...	
1867	369	48.91	...	...	45	68.81	...	...	1892	587	28.47	193	42.94	...	...	...	...	
1868	346	44.88	...	...	57	83.60	...	...	1893	584	27.44	...	...	...	...	...	...	
1869	399	44.42	...	...	60	59.64	...	...	1894	604	30.87	...	...	...	...	...	...	
1870	424	43.68	...	...	60	48.77	...	...	1895	608	31.07	...	...	...	...	...	...	
1871	338	43.36	...	...	55	58.07	...	...	1896	597	31.98	...	...	...	...	...	...	
1872	368	41.44	...	...	53	57.14	...	...	1897	649	29.47	...	...	...	...	...	...	
1873	382	38.75	...	...	60	60.06	...	...	1898	658	31.76	...	...	...	...	...	...	
1874	474	35.70	...	...	61	67.22	...	...	1899	697	32.84	...	...	...	...	...	...	
1875	374	39.58	...	...	57	76.42	...	...	1900	708	34.78	...	...	...	...	...	...	
1876	452	35.08	...	...	54	111.15	...	...	1901	733	35.06	...	...	...	...	...	...	
1877	565	31.35	...	...	64	100.47	...	...	1902	687	36.55	...	...	...	...	...	...	
									1903	692	38.64	...	...	...	...	...	...	...

5 (b) Delhi-Umballa-Kalka railway (5' 6" gauge)—

Progress in opening—

Name and section of railway.	Date of opening.	Mileage.	Total.
		Miles.	Miles.
Delhi to Kalka ... ..	1-3-91	162.36	162.36

Details of construction—

*Permanent-way.*—The permanent-way consists of double-headed steel rails, 75 lb. to the yard, laid on cast iron plate and wooden sleepers.*Ballast.*—The line is ballasted throughout with stone.*Fencing.*—The line is double fenced throughout.*Curves.*—There are no curves of less than 1,000 feet radius.*Gradient.*—The ruling gradient is 1 in 200 except for 15 miles from Kalka where it is 1 in 40.

Terms of contracts—

The railway is worked under the following contracts:—

*Contracts of*—24th January 1889 (between the Secretary of State and the East Indian Railway Company) for working.

12th February 1889 (between the Secretary of State and the Delhi-Umballa-Kalka Railway Company) for construction.

19th March 1890 (between the Secretary of State and the Delhi-Umballa-Kalka Railway Company) for raising of additional capital by the issue of debentures.

19th December 1895 (between the Secretary of State and the Delhi-Umballa-Kalka Railway Company) conceding to the Company from the 1st January 1893 the 2 per cent. of gross earnings previously retained by Government.

\* Converted to 5' 6" gauge and incorporated with the East Indian railway.

Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 5</sup> EAST INDIAN RAILWAY SYSTEM—*contd.*  
<sub>Sub-heads (a) to (d)</sub>

5 (b) Delhi-Umballa-Kalka railway (5' 6" gauge)—*concl'd.*Terms of contracts—*concl'd.*

24th July 1896 (between the Secretary of State and the Delhi-Umballa-Kalka Railway Company) for the provision of funds for capital works.

9th June 1897 (between the Secretary of State and the Delhi-Umballa-Kalka Railway Company guaranteeing interest at the rate of  $3\frac{1}{2}$  per cent. on share capital.

The general conditions of the contracts are as follows:—

*Government aid.*—By the contract of 9th June 1897, Government supplement the net earnings of the Company for the year 1896 and each succeeding year by such an annual subsidy as will enable the Company, after payment of debenture interest, to pay a dividend of  $3\frac{1}{2}$  per cent. per annum on their share capital. Land was also provided free of cost.

*Currency of contracts.*—The contracts may be determined by effluxion of time on the 31st December 1916, unless some arrangement is effected for continuing the working. Should such arrangement be made, Government may determine the contracts on the 31st December 1926 or on the 31st December of any subsequent tenth year. On determination, Government are to receive possession of the railway, and to pay the Company a sum equal to 25 times the average yearly profit of the Company during the preceding five years. Subsidy payments by Government are to be excluded from the profit of the Company in calculating the price to be paid on purchase by Government.

*Power of Company to surrender contracts.*—Nil.

*Terms of working.*—Government undertake (through the agency in the first instance of the East Indian Railway Company) to supply the necessary rolling-stock and to work and maintain the line until the 31st December 1916, taking 4 per cent. of the gross receipts of the railway for the working agency (which may include any single item of capital expenditure, not exceeding Rs. 1,000 classed as a 'Minor Work,' and a payment of Rs. 40 for every mile of line open to traffic to be made half-yearly to Government for supervision) and paying over 52 per cent. to the Company. Surplus profits in excess of  $3\frac{1}{2}$  per cent. per annum are divided equally between Government and the Company until Government have been repaid advances of subsidy, with interest. Thereafter, all surplus profits belong to the Company.

*Rates and fares.*—To be agreed upon from time to time between the Secretary of State and the working agency, but in the case of that portion of the line between Delhi and Umballa to be not more than the maximum, nor less than the minimum rates and fares in force on the East Indian railway, and in the case of that portion between Umballa and Kalka to be not more than three times such maximum nor less than such minimum.

## Statistics of working—

TABLE I.								TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts	Percentage on capital outlay.	Subsidy from Government.	Total Income.	Percentage of total income on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	
1889	58,90,335	...	...	...	...	...	...	...	...
1890	1,35,55,580	...	...	...	...	...	...	...	...
1891	1,55,44,692	9,07,697	4,72,002	3.04	...	4,72,002	3.04	128	48.00
1892	1,58,22,137	10,81,769	5,62,520	3.56	...	5,62,520	3.56	129	48.00
1893	1,55,24,600	11,98,508	6,23,224	4.01	...	6,23,224	4.01	143	48.00
1894	1,55,25,547	31,37,526	6,95,514	4.48	...	6,95,514	4.48	159	48.00
1895	1,55,06,120	14,60,519	7,59,470	4.90	...	7,59,470	4.90	174	48.00
1896	1,54,49,783	13,18,840	6,85,797	4.44	...	6,85,797	4.44	158	48.00
1897	1,53,26,585	15,73,319	8,18,126	5.34	...	8,18,126	5.34	186	48.00
1898	1,53,43,587	16,07,512	8,35,906	5.45	...	8,35,906	5.45	191	48.00
1899	1,53,01,272	14,49,376	7,29,541	4.77	...	7,29,541	4.77	172	48.00
1900	1,53,15,467	13,72,523	7,13,712	4.66	...	7,13,712	4.66	163	48.00
1901	1,52,92,648	18,05,858	9,39,046	6.14	...	9,39,046	6.14	218	48.00
1902	1,54,23,791	16,66,695	9,70,681	6.29	...	9,70,681	6.28	221	48.00
1903	1,55,49,998	18,30,960	9,52,099	6.12	...	9,52,099	6.12	216	48.00

## 5 (c) South Behar railway (5' 6" gauge)—

## Progress in opening—

Name and section of railway.	Date of opening.	Mileage.	Total.
Luckeeserai to Gya	5-7-99	Miles. 78.76	Miles. 78.76

## Details of construction—

*Permanent-way.*—The permanent-way is of the East Indian railway standard design with double headed rails, 75 lb. to the yard, laid half with cast iron chairs and timber sleepers and half with cast iron plate sleepers.

*Ballast.*—The line is ballasted throughout with stone.

*Bridges.*—See appendix 36.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 5</sup> <sub>Sub-heads (a) to (d)</sub> EAST INDIAN RAILWAY SYSTEM—contd.

## 5 (c) South Behar railway (5' 6" gauge)—concl'd.

## Details of construction—concl'd.

*Fencing.*—The line is fenced near villages, round station yards and for a short distance near each level crossing only.*Curves.*—There are no curves with a radius of less than 1,000 feet.*Gradients.*—The ruling gradient is 1 in 400.

## Terms of contracts—

The railway is worked under the following contracts:—

*Contracts of*—7th August 1895 (between the Secretary of State and the South Behar Railway Company) for construction.

22nd August 1895 (between the Secretary of State and the East Indian Railway Company) for working.

The general conditions of the contracts are as follows:—

*Government aid.*—Government, in respect of each half-year, allow to the South Behar Railway Company, by way of rebate on the share attributable to the East Indian railway of the receipts from traffic interchanged between the two railways, a sum not exceeding 30 per cent. of such share as will, together with the net earnings of the South Behar Railway Company, make up an amount equal to interest for the half-year at the rate of 4 per cent. per annum on the actual capital expenditure on the South Behar railway. For the purpose of calculating this rebate, the capital expenditure is to be regarded as not exceeding Rs. 120 lakhs, and the amount towards making up of which the rebate is to be allowed is to be limited to Rs. 2,40,000 in any half-year. Land was also provided free of cost.*Currency of contracts.*—Government have power to determine the contracts on the 30th June 1919, or at the end of any subsequent period of 10 years from that date, by giving twelve months' notice. In case of such determination, the Government will pay to the Company in England an amount equal to the total paid up capital in sterling, so far as such capital has been expended on the undertaking with the authority of the Secretary of State.*Power of Company to surrender contracts.*—Nil.*Terms of working.*—For the first two years after the opening of any section, the cost of maintenance was charged against capital, Government retaining only 35 per cent. of the gross earnings for providing rolling-stock and working the line, the remaining 65 per cent. going to the Company. Thereafter, Government retain 45 per cent. of the gross earnings (which may include any single item of capital expenditure, not exceeding Rs. 1,000 classed as a 'Minor Work' and a payment of Rs. 40 for every mile of line open to traffic to be made half-yearly to Government for supervision) to meet the cost of maintaining, stocking and working the line, the Company taking the remaining 55 per cent.*Rates and fares.*—To be agreed upon from time to time between the Government and the working agency within the maxima and minima rates and fares in force on the East Indian railway.

## Statistics of working—

Calendar year.	TABLE I.							TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage on capital outlay.	Rebate from E. I. Ry.	Total income.	Percentage of total income on capital outlay.	Earnings per mile per week.	Proportion of expense to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	
1895	5,17,988	...	...	...	...	...	...	...	...
1896	30,98,036	...	...	...	...	...	...	...	...
1897	62,72,345	...	...	...	...	...	...	...	...
1898	97,45,791	...	...	...	...	...	...	...	...
1899	1,18,16,730	2,03,328	1,32,168	1.12	33,403	1,65,566	1.40	101	35.0
1900	1,28,15,110	4,67,133	3,08,636	2.47	1,44,404	4,48,040	3.64	114	35.0
1901	1,23,66,533	5,14,370	3,08,822	2.50	1,28,082	4,36,904	3.58	125	40.0
1902	1,19,88,612	4,99,809	2,74,895	2.29	1,35,445	4,10,340	3.42	122	45.0
1903	1,20,01,897	5,24,605	2,88,533	2.40	1,57,708	4,46,241	3.72	128	45.0

## 5 (d) Tarkesur railway (5' 6" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Seoraphuli to Tarkesur . . . . .	20-2-83	1-1-85	22.23	22.23

## Details of construction—

*Permanent-way.*—The permanent-way consists of 75 lb. rails and fastenings of wrought iron purchased from the East Indian railway, laid on cast iron plate sleepers.*Ballast.*—The line is ballasted throughout with stone.*Fencing.*—The line is double fenced throughout.*Curves.*—There are no curves with a radius of less than 1,000 feet.*Gradients.*—The ruling gradient is 1 in 500.

Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 168.]

Number Main head 5 EAST INDIAN RAILWAY SYSTEM—concl'd.  
Sub-heads (a) to (d)

5 (d) Tarkessur railway (5' 6" gauge)—concl'd.

Terms of contracts—

The railway is worked under the following contract:—

Contracts of—8th September 1883 (between the Secretary of State and the Tarkessur Railway Company) for construction.

15th September 1887 (between the Secretary of State and the East Indian Railway Company) for working.

1st March 1888 (between the Secretary of State and the Tarkessur Railway Company) for working.

The general conditions of the contracts are as follows:—

Government aid.—Land was provided free of cost.

Currency of contracts.—The contract of 1883 terminates on the 7th September 1982, but the Secretary of State by giving twelve months' previous notice, has the power to determine the contract after the railway has been opened for thirty years, and thereafter at intervals of ten years. In the event of such determination, Government will pay the Company a sum equal to the aggregate net profits during the twenty years preceding.

Power of Company to surrender contracts.—Nil.

Terms of working.—From the gross earnings are deducted working expenses (which may include capital expenditure classed as 'Minor Works' subject to a maximum charge on such account of Rs. 15 per mile of line open in each half-year and a payment of Rs. 40 for every mile of line open to traffic to be made half-yearly to Government for supervision calculated at the same percentage of the gross earnings as obtains on the East Indian railway system as a whole; 5 per cent. of the gross earnings for the hire of rolling-stock; and contribution to the Provident Fund. The balance is divided in proportion of four-fifths to the Tarkessur Railway Company and one-fifth to the East Indian Railway Company.

Rates and fares.—Certain maxima have been fixed, and the Company are authorized to charge within the maxima such rates and fares as may from time to time be mutually agreed upon.

Statistics of working—

Calendar year.	TABLE I				TABLE II	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings
	Rs.	Rs.	Rs.		Rs.	
1885	16,88,995	2,62,318	1,24,424	7.37	227	52.57
1886	17,24,717	2,49,003	1,19,136	6.91	215	52.15
1887	17,28,410	2,63,792	1,32,274	7.65	228	49.86
1888	17,34,822	2,79,717	1,36,780	7.88	242	51.10
1889	17,26,138	2,84,895	1,36,578	7.90	246	55.51
1890	17,28,778	2,86,526	1,44,283	8.35	248	49.64
1891	17,29,021	3,05,132	1,63,478	9.45	264	46.42
1892	17,32,567	2,93,674	1,54,837	8.94	254	47.28
1893	17,47,280	2,88,051	1,50,420	8.61	245	46.86
1894	17,47,840	3,06,159	1,56,469	8.95	265	48.96
1895	17,53,340	3,08,156	1,59,091	9.07	267	48.37
1896	17,56,898	3,13,243	1,57,005	8.95	271	49.88
1897	17,57,160	3,12,656	1,62,563	9.25	270	49.01
1898	17,77,085	3,14,056	1,58,461	8.92	272	49.54
1899	17,84,166	3,08,759	1,52,491	8.55	267	50.58
1900	17,84,166	3,32,965	1,61,132	9.03	288	51.61
1901	17,92,293	3,30,390	1,57,828	8.81	285	52.23
1902	17,91,312	3,28,510	1,53,348	8.56	283	53.32
1903	17,93,965	3,33,924	1,62,741	9.13	288	50.96

Number Main head 6 GREAT INDIAN PENINSULA RAILWAY SYSTEM—  
Sub-heads (a) to (g)

Lines comprising system.—The Great Indian Peninsula railway system is made up of—

	Open line.	Under construction.	Total.
	Miles.	Miles.	Miles.
(a) Great Indian Peninsula railway (5' 6" gauge)	1,561.63	...	1,561.63
(b) Bhopal-Itarsi railway (5' 6" gauge)	57.39	...	57.39
(c) Bhopal-Ujjain railway (5' 6" gauge)	113.27	...	113.27
(d) Bina-Goona-Baran railway (5' 6" gauge)	145.63	...	145.63
(e) Indian Midland railway (5' 6" gauge)	805.03	...	805.03
(f) Gwalior Light railway (2' 0" gauge)	126.14	57.86	184.00
(g) Agra-Delhi Chord railway (5' 6" gauge)	...	120.10	120.10
Total	2,809.09	177.96	2,987.05

Running powers—

Home line over Foreign lines:—

Dadar junction to Colaba, Bombay, Baroda and Central India railway	7.25
At Agra, Rajputana-Malwa railway	2.89
Agra to Tundla, East Indian railway	12.75
At Cawnpore	1.49
At Manikpore	0.68
At Katni	0.38
At Katni, Bengal-Nagpur railway	1.60
At Ujjain, Bombay, Baroda and Central India railway	0.24
At Cawnpore, Oudh and Rohilkhand State railway	0.86
From Cawnpore to Lucknow, Oudh and Rohilkhand State railway	41.68
Total	72.72

Foreign lines over Home line:—

Bombay, Baroda and Central India railway, Dadar Junction to Carnas bridge	4.39
Bengal-Nagpur railway at Nagpur	0.65
Total	5.04

**APPENDIX 38—contd.**  
[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

*History of railways constructed and in progress.*  
[For Index see page 168.]

Number Main head 6 **GREAT INDIAN PENINSULA RAILWAY SYSTEM—contd.**  
Sub-heads (a) to (g)

**6 (a) Great Indian Peninsula railway proper (5' 6" gauge)—contd.**  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.		
					Calendar year.	Mileage.	
<b>NORTH-EAST LINE—</b>							
<i>Main line—</i>							
Victoria terminus to Bori Bandar	31-10-50	1-1-82	0'19		1853	20	
Bori Bandar to Thana		18-4-53	20'54		1854	83	
Thana to Kalyan	23-3-51	1-5-54	12'65		1855	49	
Persick to Kalyan		22-5-52					
Kalyan to Vasind	20-5-53	1-10-55	16'14		1856	87	
Vasind to Asangaon		6-2-60	3'75		1857	87	
Asangaon to Kasara	25-3-67	1-1-61	21'84		1858	193	
Kasara to Igatpuri (Thull Ghat)		1-1-65	9'89		1859	244	
Igatpuri to Nasik	25-3-67	28-1-61	31'43		1860	297	
Nasik to Chalisgaon		1-10-61	87'24		1861	438	
Chalisgaon to Jalgaon	1858	6-10-62	57'48		1862	495	
Jalgaon to Bhusaval		20-5-63	15'01		1863	555	
Bhusaval to Burhanpur	1858	20-11-63	33'91		1864	587	
Burhanpur to Khandwa		3-9-63	42'78		1865	704	
Khandwa to Bir	1858	17-2-68	21'15		1866	818	
Bir to Itarsi		1-1-70	89'27		1867	854	
Itarsi to Sohagpur	1858	1-2-70	30'69		1868	875	
Sohagpur to Jubbulpore		8-3-70	121'14		1869	875	
<b>Total main line</b>					615'10		
<i>Branches—</i>							
<i>Chalisgaon-Dhulia branch—</i>							
Chalisgaon to Dhulia	15-7-97	15-10-00	34'95		1870	1,268	
<i>Jalgaon-Amalner branch—</i>							
Jalgaon to Dharangaon	Jany. '98	20-2-00	18'26		1871	1,290	
Dharangaon to Amalner		4-4-00	16'00		1872	1,290	
			34'26		1873	1,290	
					1874	1,308	
					1875	1,308	
<i>Nagpur branch—</i>							
Bhusaval Junction to Malkapur	27-3-58	20-5-63	30'05		1876	1,308	
Malkapur to Shegaon		24-10-64	32'53		1877	1,336	
Shegaon to Badnera		18-12-65	72'67		1878	1,432	
Badnera to Fulgaon		16-7-66	40'29		1879	1,493	
Fulgaon to Sindi		5-11-66	38'27		1880	1,493	
Sindi to Nagpur		20-2-67	29'44		1881	1,493	
			243'25		1882	1,493	
					1883	1,493	
					1884	1,493	
<i>Khamgaon branch—</i>							
Jalamb to Khamgaon	7-6-69	4-3-70	7'97				
<i>Amraoti branch—</i>							
Badnera to Amraoti	11-6-70	16-2-71	5'49				
<i>Wardha Coal branch—</i>							
Wardha to mile 490'20	5-2-72	1-2-79	18'95		1885	1,493	
Mile 490'20 to mile 512'64	1-4-74	*24-12-75	22'44		1886	1,493	
Mile 512'64 to Warora		*26-1-76	4'00		1887	1,493	
			45'39				
<i>Mohpani branch—</i>							
Gadarvada to Mohpani	13-2-71	†3-9-72	12'47		1888	1,492	
Mohpani to Gotitoria	25-2-96	2-11-96	1'07		1889	1,492	
Mohpani to new coal-fields	12-3-96	3-6-00	0'14		1890	1,492	
			13'68		1891	1,491	
<b>Total branches</b>					384'99	1892	1,490
<b>TOTAL NORTH-EAST LINE</b>					1,000'09	1893	1,490
<b>SOUTH-EAST LINE—</b>							
<i>Main line—</i>							
Kalyan to Palasdhari (Karjat)	13-5-54	12-5-56	30'61		1894	1,490	
Neral to Palasdhari	10-1-55						
Palasdhari to Khandala (Bhore ghat)	7-7-55	14-5-63	13'20		1895	1,490	
Khandala to Lonavla (Bhore ghat)		14-6-63	2'35		1896	1,491	
Lonavla to Poona	5-10-55	14-6-58	39'66		1897	1,491	
Poona to Diksal		15-12-53	64'25		1898	1,491	
Diksal to Barsi Junction	5-10-55	23-10-53	50'60		1899	1,491	
Barsi Junction to Mohol		21-1-60	28'32		1900	1,561	
Mohol to Sholapur	3-8-65	6-8-60	20'51		1901	1,561	
Sholapur to Gulbarga		1-2-70	70'29		1902	1,561	
Gulbarga to the Kistna	Dec. '65	1-12-70	73'76		1903	1,561	
Kistna to Raichur		1-5-71	15'31				
<b>Total main line</b>					403'86		
<i>Branches—</i>							
<i>Dhond-Manmad branch—</i>							
Dhond to Ahmednagar	25-8-77	15-3-78	50'41				
Ahmednagar to Manmad		17-4-78	95'03				
<i>Khopoli branch—</i>							
Palasdhari to Khopoli	30-1-55	12-5-56	145'44				
			7'24				
<b>Total branches</b>					152'68		
<b>TOTAL SOUTH-EAST LINE</b>					556'54		
<b>TOTAL OPEN MILEAGE, GREAT INDIAN PENINSULA RAILWAY PROPER</b>					1,561'63		

\* For coal traffic only ; subsequently opened for public traffic as follows : mile 489'69 to mile 492'25 on 16th June 1887 and mile 492'25 to Warora 7th November 1877.

† For coal traffic only ; opened for public traffic on 1st January 1881.

Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 6</sup> <sub>Sub-heads (a) to (g)</sub> GREAT INDIAN PENINSULA RAILWAY SYSTEM—*contd.*

6 (a) Great Indian Peninsula railway proper (5' 6" gauge)—*contd.*Progress in opening—*concl'd.*

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.
			Miles.
<b>DOUBLE LINE—MAIN LINE AND BRANCHES—</b>			
<b>NORTH-EAST LINE—</b>			
Victoria terminus to Bozi Bandar	...	1-1-82	0.19
Bori Bandar to Thana	...	18-4-53	20.54
Thana to Kalyan	...	1-5-54	12.65
Kalyan to Vasind	...	22-10-66	16.15
Vasind to Atgaon	...	20-2-67	9.65
Atgaon to Kasara	...	25-4-67	15.94
Kasara to Igatpuri	...	1-1-65	9.89
Igatpuri to Nasik	...	10-1-69	31.43
Nasik to Chalisgaon	...	10-1-69	37.24
Chalisgaon to Kajgaon	...	10-1-69	11.86
Kajgaon to Pachora	...	17-3-69	16.05
Pachora to Maheji	...	27-5-69	9.14
Maheji to Bhadli	...	6-3-73	27.59
Bhadli to Bhusaval	...	6-6-73	7.84
Bhusaval to Bhusaval Junction	...	1-7-92	1.11
Bhusaval Junction to Khandwa (Abna Junction)	...	11-1-89	75.12
Bagra tunnel to Towa viaduct	...	1-2-70	0.74
Total North-East line			353.73
<b>SOUTH-EAST LINE—</b>			
Kalyan to Palasdhari	...	25-7-70	30.61
Palasdhari to Khandala	...	14-5-63	13.20
Khandala to Lonavla	...	14-6-58	2.61
Total South-East line			46.42
<b>NAGPUR BRANCH—</b>			
Bhusaval Junction to Nadgaon	...	11-1-89	17.72
Nadgaon to Shegaon	...	1-4-90	44.65
Total Nagpur branch			62.37
<b>TOTAL DOUBLE LINE</b>			<b>461.92</b>

## Details of construction—

**Permanent-way.**—The rails originally laid were iron, weighing 68 lb. and 84 lb. to the yard. These have now been replaced by steel rails; there were 63.79 miles of 86 lb., 1,083.60 miles of 82 lb. and 581.75 miles of 69 lb. on the 30th June 1903 on the main line only. The sleepers originally laid were chiefly wooden. These have now mostly been replaced by iron pots; there were 1,677.37 miles of bowl sleepers and 51.77 miles of wooden sleepers on the 30th June 1903 on the main line only. The whole of the South-East line, excepting the Ghat section, is laid with iron pots. On the Dhond-Manmad line, the rails are chiefly double headed steel, 69 lb. to the yard, laid on iron pot sleepers. On the Wardha Coal railway, there are 18.13 miles of 69 lb. double headed steel rails and 27.27 miles of 68 lb. iron rails. The sleepers are of wood for 38.60 miles and cast iron pot sleepers for 6.80 miles. On the Khamgaon branch, the line was originally laid with 57 lb. flat-footed rails on cast iron pots, but in 1895 the whole of these were removed and replaced by second hand Great Indian Peninsula railway 68 lb. iron rails and cast-iron pot sleepers. There is only 0.18 mile of road at Jalamb which is laid with 82 lb. steel rails. On the Amraoti branch with the exception of 0.50 mile at the Badnera end, which is laid with steel rails, the permanent-way is of iron, the rails weighing 68 lb. to the yard, on cast iron pot sleepers.

**Ballast.**—The line is fully ballasted throughout.

**Tunnels.**—See Appendix 37.

**Bridges.**—See Appendix 36.

**Fencing.**—The line, with the exception of the Mohpani, Chalisgaon, Dhulia and Jalgaon-Amalner branches, is well fenced throughout. About 1.26 miles of wire fencing have been provided at each end of the Khamgaon branch, the remaining portion being unfenced. The Amraoti branch is fenced only at the Badnera and Amraoti ends.

**Curves.**—The sharpest curve has a radius of 990 feet; it is 0.34 mile long and is situated between miles 75 and 86 from Bombay.

**Gradients.**—The ruling gradients on ordinary sections of the main line vary from 1 in 100 to 1 in 200 with 1 in 100 banking sections near Wasind and Asvali; on the Ghat sections it is 1 in 37; Dhond and Manmad branch, 1 in 100 except between Puntamba and Yeola where it is about 1 in 200; Wardha Coal branch, 1 in 133; Chalisgaon-Dhulia branch, 1 in 125; Jalgaon-Amalner branch, 1 in 200; Mohpani branch, 1 in 150 and 1 in 100 on the branch to the new coal-fields; Khamgaon branch, 1 in 100; and Amraoti branch, 1 in 163.

## Terms of contract—

The railway is worked under the following contract:—

**Contract of**—21st December 1900 for working the Great Indian Peninsula railway and Indian Midland railway systems as one undertaking.

The general conditions of the contract are as follows:—

**Government aid.**—Government to pay interest at 3 per cent. per annum on the amount for the time being paid up and credited as paid up, on the shares or stock in the new capital of the Great Indian Peninsula Railway Company which at present authorised at £2,575,000. All capital will be provided by the Secretary of State bearing interest at the rate of 3½ per cent. per annum or at such other rate as may be agreed upon; or will be raised by the Company by the issue of debentures or debenture stock at such rate of interest as the Secretary of State may determine. Land was also provided free; but any acquired after 30th June 1900, is paid for from the capital of the undertaking.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[ For Index see page 168.]

Number <sup>Main head 6</sup> Sub-heads (a) to (g) GREAT INDIAN PENINSULA RAILWAY SYSTEM—contd.

## 6 (a) Great Indian Peninsula railway proper (5' 6" gauge)—contd.

Terms of contract—contd.

*Terms of contract.*—The line was purchased from the Great Indian Peninsula Guaranteed Railway Company by the State in 1900, and all the contracts then subsisting between the Secretary of State and that Company were determined. The purchase price was £40,781,568, \* payable up to the 17th August 1948, in the form of a terminable annuity of £ 1,268,516.

*Company's stock at date of purchase . . .	34,859,218
Debentures and debenture stock . . .	5,922,350
<b>Total</b> . . .	<b>40,781,568</b>

*Currency of contract.*—The contract is current for a period of 25 years from the 1st July 1900, when it will be determinable by the Secretary of State, paying the amounts paid or credited on all shares and stock and indemnifying the Company for all debts and liabilities incurred under sanction.

*Power of Company to surrender contract.*—Nil.

*Terms of working.*—From the gross earnings of the undertaking, that is of the Great Indian Peninsula and Indian Midland railways, there will be deducted—

(i) The working expenses, which may include any single item of capital expenditure not exceeding Rs. 2,000 to be classed as a 'Minor Work' subject to a maximum charge on such account of Rs. 25,000 in each half-year and a payment of Rs. 40 per mean mile worked to be made half-yearly to Government for supervision ;

(ii) A sum of Rs. 1,00,00,000 which is payable to Government ;

(iii) Repayment of all interest payable on all moneys other than shares or capital stock raised for the purposes of the undertaking or provided by Government after the 30th June 1900.

If the receipts for any year ending on the 30th day of June exceed the payments as above detailed for the same period,  $\frac{1}{10}$ ths of the surplus are paid to the Secretary of State and  $\frac{9}{10}$ th to the Company. Provided that if the Company increases their new capital and issue further shares or stock as fully paid up in exchange for stock of the Indian Midland Railway Company, the Company's share in such surplus shall be increased by an additional fractional share bearing the same proportion to the original fractional share of  $\frac{1}{10}$ th as the additional capital of the Company so exchanged bears to the new authorised capital of £2,575,000, but the total fractional share of the Company is not to exceed a one-tenth share.

*Rates and fares.*—Certain maxima and minima have been fixed within which the Company is permitted to vary its rates.

Statistics of working—

Calendar year.	TABLE I.								TABLE II.		
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage on Capital outlay.	Guaranteed interest.	Annuity.	Company's share of net traffic receipts.	Gain or loss to the State.	Calendar year.	Earnings per mile per week.	Pro: of exp: to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.		Rs.	
1879 . . . .	25,59,56,152	2,52,48,315	1,01,90,602	3.98	1,24,65,646	...	6,14,291	-28,89,335	1853 . . .	119	45.90
1880 . . . .	25,58,96,113	2,49,53,253	1,11,05,551	4.34	1,24,93,200	...	5,58,636	-19,41,485	1854 . . .	88	60.81
1881 . . . .	25,75,86,095	3,20,56,823	1,61,74,097	6.28	1,24,93,200	...	18,23,748	+18,57,149	1855 . . .	89	70.21
1882 . . . .	25,75,90,499	3,53,63,201	1,80,88,483	7.02	1,24,23,200	...	32,05,683	+23,89,400	1856 . . .	113	42.17
1883 . . . .	26,07,58,700	3,51,14,365	1,75,36,005	6.72	1,25,12,825	...	33,22,918	+17,00,262	1857 . . .	158	45.27
1884 . . . .	26,34,97,600	3,36,56,544	1,59,55,250	6.06	1,42,81,503	...	24,76,048	-8,02,301	1858 . . .	173	42.19
1885 . . . .	26,84,43,316	3,64,32,047	1,79,31,397	6.68	1,51,17,487	...	26,97,344	+1,16,586	1859 . . .	172	51.19
1886 . . . .	26,92,99,673	3,92,57,907	2,08,78,390	7.75	1,60,91,138	...	39,89,569	+7,97,683	1860 . . .	144	60.97
1887 . . . .	27,03,76,543	3,99,27,468	2,10,80,237	7.80	1,66,44,568	...	41,03,068	+9,32,601	1861 . . .	139	76.35
1888 . . . .	27,25,93,364	4,10,59,219	2,16,35,667	7.94	1,72,81,176	...	43,31,246	+28,245	1862 . . .	149	62.03
1889 . . . .	27,50,39,981	3,70,68,314	1,78,91,616	6.51	1,74,32,160	...	26,82,255	-22,22,799	1863 . . .	175	67.55
1890 . . . .	27,77,29,064	3,81,45,242	1,90,22,952	6.85	1,55,23,271	...	31,04,971	+3,94,710	1864 . . .	119	72.07
1891 . . . .	27,75,19,781	4,52,55,333	2,32,50,708	8.38	1,67,57,262	...	51,89,008	+13,04,438	1865 . . .	414	59.54
1892 . . . .	27,72,17,255	4,05,65,627	2,01,95,097	7.28	1,88,04,314	...	33,13,506	-24,22,723	1866 . . .	357	58.07
1893 . . . .	27,72,93,860	3,88,13,742	1,79,90,922	6.49	1,91,85,618	...	29,25,476	-41,00,172	1867 . . .	368	55.69
1894 . . . .	27,91,09,112	3,62,74,296	1,62,42,736	5.82	2,18,32,651	...	30,40,331	-86,30,196	1868 . . .	357	61.80
									1869 . . .	348	67.79
									1870 . . .	300	62.25
									1871 . . .	307	63.03
									1872 . . .	284	64.25
									1873 . . .	284	64.09
									1874 . . .	303	59.17
									1875 . . .	324	47.28
									1876 . . .	369	47.60
									1877 . . .	492	48.30
									1878 . . .	429	48.91
									1879 . . .	383	59.64
									1880 . . .	372	55.49
									1881 . . .	426	49.40
									1882 . . .	470	48.00
									1883 . . .	466	49.67
									1884 . . .	503	52.31
									1885 . . .	467	50.46
									1886 . . .	503	46.49
									1887 . . .	511	46.84
									1888 . . .	526	46.96



Appendix 38.  
History of railways.

APPENDIX 38—contd.  
[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]  
History of railways constructed and in progress.

[For Index see page 166.]

Number <sup>Main head 6</sup> <sub>Sub-heads (a) to (g)</sub> GREAT INDIAN PENINSULA RAILWAY SYSTEM—contd.

6 (a) Great Indian Peninsula railway proper (5' 6" gauge)—contd.

Statistics of working—contd.

TABLE I—contd.									TABLE II—contd.		
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage on Capital outlay.	Guaranteed interest.	Annuity.	Company's share of net traffic receipts.	Gain or loss to the State.	Calendar year.	Earnings per mile per week.	Pro of exp to earnings
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.		Rs.	
1895 . . .	27,95,39,235	3,37,90,194	1,47,16,901	5.26	2,16,97,060	...	16,20,361	-86,00,520	1889 . . .	494	51.4
1896 . . .	27,90,29,173	3,44,19,629	1,54,05,060	5.52	2,02,18,872	...	21,53,257	-69,67,069	1890 . . .	508	49.9
1897 . . .	27,92,85,611	2,84,32,403	93,83,654	3.36	1,89,46,479	...	...	-95,62,825	1891 . . .	584	48.2
1898 . . .	28,18,37,621	3,43,77,496	1,41,02,053	5.00	1,83,20,513	...	13,57,327	-55,75,737	1892 . . .	525	49.3
1899 . . .	28,55,49,756	3,58,09,431	1,56,57,520	5.48	1,79,65,944	...	17,77,032	-40,85,456	1893 . . .	501	53.5
1900 . . .	*30,27,49,717	3,46,31,925	95,37,130†	3.15	89,85,500†	94,88,889	14,48,208†	-8,76,578†	1894 . . .	468	55.1
1901 . . .	30,33,67,135	4,16,57,453	66,30,083†	2.19	24,34,267†	...	2,72,210	-26,08,937	1895 . . .	436	56.3
1902 . . .	30,57,71,091	4,23,12,663	2,16,48,151	7.12	48,96,908	1,90,87,970	2,92,872	-32,17,456	1896 . . .	444	55.2
1903 . . .	31,08,53,055	4,68,61,534	2,38,12,514	7.66	50,66,786	1,90,28,730	3,26,878	-6,09,880	1897 . . .	367	66.9
									1898 . . .	450	59.4
									1899 . . .	462	55.7
									1900 . . .	439	52.4
									1901 . . .	518	48.0
									1902 . . .	523	50.1
									1903 . . .	575	49.1

Calendar year.	WARDHA COAL BRANCH.						DHOND-MANMAD BRANCH.										
	TABLE I.			TABLE II.			TABLE I.			TABLE II.							
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Interest.	Gain or loss to the State.	Earnings per mile per week.	Pro of exp to earnings.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Interest.	Gain or loss to the State.	Earnings per mile per week.	Pro of exp to earnings.	
Rs.	Rs.	Rs.		Rs.	Rs.	Rs.		Rs.	Rs.	Rs.		Rs.	Rs.	Rs.		Rs.	
1879 . . .	55,99,772	1,65,158	6,073	0.11	2,51,434	-2,45,361	69	81.64	98,90,308	4,67,557	-27,664	...	4,07,525	-4,85,189	62	105.92	
1880 . . .	57,32,921	3,02,879	-1,31,780	...	2,57,032	-3,38,762	65	152.90	1,07,29,227	6,95,094	65,145	0.61	4,76,299	-4,11,154	91	87.31	
1881 . . .	58,80,993	4,75,938	1,19,447	2.03	2,37,916	-1,18,469	197	104.35	99,49,346	6,33,862	1,22,588	1.23	3,93,438	-2,70,850	...	...	
1882 . . .	60,94,186	5,95,622	98,287	1.61	2,38,934	-1,40,547	255	76.80	99,25,416	7,99,553	1,59,192	1.60	3,97,802	-2,36,610	...	...	
1883 . . .	63,93,758	7,64,702	5,39,382	9.22	2,47,602	+3,41,780	126	59.80	1,00,64,757	8,22,833	1,92,139	1.91	4,02,585	-2,10,446	109	76.65	
1884 . . .	66,20,641	6,31,037	2,11,860	3.20	2,61,176	-49,316	121	64.80	1,02,49,438	8,77,100	2,03,785	1.99	4,08,233	-2,04,498	116	76.77	
1885 . . .	66,65,755	6,58,649	1,46,395	2.20	2,64,219	-1,17,924	108	80.66	1,02,68,278	9,07,422	2,20,623	2.15	4,10,544	-1,89,921	55	55	
1886 . . .	71,93,093	7,28,205	1,35,936	1.89	2,78,223	-1,42,292	114	92.23	1,09,26,745	9,84,716	2,33,764	2.14	4,30,353	-1,96,589	...	...	
1887 . . .	71,00,635	7,93,052	1,31,981	1.86	2,89,465	-1,57,484	125	80.76	1,09,46,935	9,60,890	2,27,333	2.08	4,37,893	-2,10,555	...	...	
1888 . . .	70,91,230	8,71,430	1,98,020	2.79	2,84,523	-86,503	135	74.21	1,09,75,115	10,31,762	2,55,445	2.53	4,38,458	-1,63,013	...	...	
1889 . . .	70,54,755	8,62,694	2,99,621	4.25	2,82,844	+16,777	142	57.24	1,09,88,830	10,08,616	2,49,427	2.27	4,39,819	-1,89,892	...	...	
1890 . . .	70,06,181	9,33,326	2,75,001	3.93	2,81,296	-6,295	140	63.64	1,09,93,448	10,61,316	2,63,134	2.39	4,39,629	-1,76,495	...	...	
1891 . . .	49,81,198	2,58,971	60,053	1.21	2,03,779	-1,43,726	55	55	1,10,44,039	11,90,340	3,08,533	2.79	4,40,296	-1,31,713	...	...	
1892 . . .	49,87,689	2,32,986	34,096	0.68	1,99,337	-1,65,241	...	...	1,10,73,028	12,18,412	3,28,395	2.96	4,42,535	-1,14,200	...	...	
1893 . . .	49,87,689	2,10,856	89,213	1.79	1,99,484	-1,10,271	...	...	1,11,37,125	12,90,798	3,48,572	3.13	4,44,246	-95,574	...	...	
1894 . . .	49,87,689	2,20,237	89,289	1.79	1,99,508	-1,10,219	...	...	1,12,11,642	13,61,866	3,81,993	3.41	4,48,019	-66,025	...	...	
1895 . . .	49,90,794	1,98,552	76,362	1.53	1,99,539	-1,23,177	...	...	1,13,18,247	14,04,021	4,08,233	3.61	4,50,104	-41,871	...	...	
1896 . . .	49,96,305	2,06,078	83,859	1.68	1,99,745	-1,15,886	...	...	1,13,73,050	13,11,585	3,67,395	3.23	4,55,018	-87,623	...	...	
1897 . . .	49,96,325	1,96,858	58,531	1.17	1,99,794	-1,41,263	...	...	1,14,06,534	12,01,143	2,81,272	2.47	4,56,230	-1,74,958	...	...	
1898 . . .	49,96,325	2,09,600	77,827	1.56	1,99,853	-1,22,026	...	...	1,14,23,076	11,18,296	2,89,536	2.53	4,56,411	-1,66,875	...	...	
1899 . . .	49,96,325	2,07,216	82,500	1.65	1,99,852	-1,17,352	...	...	1,15,34,107	11,55,032	2,99,555	2.60	4,59,296	-1,59,741	...	...	
1900 . . .	**	1,75,380	††80,754	...	††99,927	††-19,173	...	...	**	7,25,613	2,11,534	...	††	2,30,220	††-18,686	...	...
1901 . . .	Amalgamated with the Great Indian Peninsula railway.								Amalgamated with the Great Indian Peninsula railway.								

\* Capital expenditure to the 31st December 1900, including expenditure on the Wardha Coal and Dhond-Manmad railways.  
 † For the 1st half of 1900.  
 ‡ For the 2nd half of 1900.  
 § Including outlay on the Khamgaon and Amroati railways, leased in perpetuity to the British Government.  
 ¶ Including the figures of the Khamgaon and Amroati railways for the 2nd half of 1902.  
 \*\* Included with the Great Indian Peninsula railway.  
 †† For the 1st half of 1900. The figures for the 2nd half of 1900 are included with those of the Great Indian Peninsula railway.  
 ‡‡ Included with the Great Indian Peninsula railway from 1891.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 6</sup> Sub-heads (a) to (g) GREAT INDIAN PENINSULA RAILWAY SYSTEM—contd.

6 (a) Great Indian Peninsula railway proper (5' 6" gauge)—concl'd.

Statistics of working—concl'd.

Calendar year.	KHAMGAON BRANCH.						AMBAOTI BRANCH.					
	TABLE I.				TABLE II.		TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Earnings per mile per week.	Pro: of exp: to earnings.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Earnings per mile per week.	Pro: of exp: to earnings.
Rs.	Rs.	Rs.		Rs.		Rs.	Rs.	Rs.		Rs.		
1879 . . . . .	5,35,617	30,086	—266	...	146	100·69	4,77,043	69,904	16,175	8·89	224	76·86
1880 . . . . .	5,19,868	27,363	—4,922	0·94	91	84·44	4,45,585	50,866	3,639	0·82	163	92·85
1881 . . . . .	4,99,371	41,506	4,561	0·92	*	*	4,45,663	53,934	34,424	7·72	*	*
1882 . . . . .	4,91,164	75,966	30,389	6·19	*	*	4,44,651	85,147	39,535	8·89	*	*
1883 . . . . .	4,90,996	62,657	23,469	4·58	151	64·14	4,44,860	96,160	44,387	9·88	308	53·84
1884 . . . . .	4,90,903	46,830	13,037	2·66	118	72·16	4,44,774	76,782	34,174	7·68	246	55·49
1885 . . . . .	4,90,739	41,363	11,020	2·25	...	...	4,44,730	80,803	34,447	7·75	...	...
1886 . . . . .	4,89,613	59,452	20,233	4·13	...	...	4,44,686	95,111	44,137	9·93	...	...
1887 . . . . .	4,89,180	53,479	16,990	3·47	...	...	4,44,308	88,157	35,855	8·07	...	...
1888 . . . . .	4,88,357	52,635	15,797	3·23	113	...	4,43,892	81,710	30,886	6·96	...	...
1889 . . . . .	4,90,911	65,372	22,528	4·59	...	...	4,45,615	1,02,023	41,671	9·35	...	...
1890 . . . . .	4,90,520	55,288	26,092	5·32	...	...	4,45,155	1,01,502	46,254	10·39	...	...
1891 . . . . .	4,90,408	66,675	32,620	6·65	...	...	4,49,395	1,12,909	53,393	11·88	...	...
1892 . . . . .	4,89,182	65,548	30,309	6·32	...	...	4,50,160	1,05,762	48,637	10·80	...	...
1893 . . . . .	4,87,567	21,697	21,997	4·51	...	...	4,49,998	43,941	43,056	9·57	...	...
1894 . . . . .	4,86,003	21,966	21,667	4·46	...	...	4,49,461	42,795	41,910	9·32	...	...
1895 . . . . .	5,20,947	26,031	26,031	5·00	...	...	4,49,988	39,137	38,252	8·50	...	...
1896 . . . . .	5,22,603	24,446	24,446	4·63	...	...	4,51,119	43,756	42,871	9·50	...	...
1897 . . . . .	5,22,150	13,901	13,901	2·66	...	...	4,52,445	30,746	29,862	6·60	...	...
1898 . . . . .	5,22,150	24,326	24,326	4·66	...	...	4,54,498	40,057	39,172	8·62	...	...
1899 . . . . .	5,22,150	41,850	14,850	2·84	...	...	4,54,417	33,099	32,214	7·09	...	...
1900 . . . . .	5,22,150	33,783	13,924	2·67	...	...	4,54,418	78,532	32,436	7·14	...	...
1901 . . . . .	5,22,150	49,378	23,337	4·47	120	52·74	4,51,915	1,08,578	50,537	11·12	365	53·73
1902 . . . . .	*	†32,968	†17,209	...	120	52·35	*	†79,582	†41,099	...	468	53·88
1903 . . . . .	Amalgamated with	the Great	Indian	Peninsula	railway.							

## 6 (b) Bhopal-Itarsi railway (5' 6" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
						Miles.
<b>Main line—</b>						
Itarsi to Hoshangabad . . . . .	31-7-80	1-6-82	10·89	57·11	1882	11
Hoshangabad to Bhopal . . . . .		18-11-84	46·22		1883	11
Total, main line . . . . .	...	...	...	...	1884	57
<b>Branch—</b>					to	
Centre of Bhopal station to the joint boundary of the Bhopal-Itarsi and Indian Midland railways at Bhopal . . . . .	July '94	11-11-95	0·28	0·28	1903	
<b>TOTAL</b> . . . . .	...	...	...	57·39		

Details of construction—

*Permanent-way.*—The line was originally laid with 62 lb. steel rails. Up to the end of December 1903, 49·08 miles of track have been relaid with Indian Midland railway 80 lb. steel rails. The sleepers were partly of steel and partly of creosoted pine and other kinds of wood. The wooden sleepers have been renewed from time to time with Indian Midland railway pot sleepers. A similar operation has now been taken in hand with the steel trough sleepers in the road, of which eleven miles have been renewed with Indian Midland railway pot.

\* Included with the Great Indian Peninsula railway.  
† For the 1st half of 1902.

Appendix 38.  
History of railways.

APPENDIX 38—contd.

[ Appendices 4 (portion), 6, 7 and 47 in Report for 1902. ]

History of railways constructed and in progress.  
[For Index see page 168.]

Number <sup>Main-head 6</sup> <sub>Sub-heads (a) to (g)</sub> GREAT INDIAN PENINSULA RAILWAY SYSTEM—contd.

6 (b) Bhopal-Itarsi railway (5' 6" gauge)—concl'd.

Details of construction—concl'd.

Ballast.—The line is fully ballasted throughout.

Bridges.—See appendix 36.

Fencing.—The line is wholly fenced.

Curves.—There are no curves with a radius of less than 990 feet.

Gradients.—The ruling gradient is 1 in 200, except on the Ghat section, 11 miles, where it is 1 in 80.

Terms of contracts—

The Bhopal-Itarsi railway is worked under the following :

Agreement of—16th September 1880 (between the Government of India and Her Highness the Begum of Bhopal) for construction.

2nd December 1890 Agreement supplemental to that of 1880 for division of profits.

Contract of—21st December 1900 (between the Secretary of State and the Indian Midland Railway Company) for maintenance and working by the Great Indian Peninsula Railway Company.

The general conditions of the contracts are as follows:—

Government aid.—The British Government has paid for the portion, 13.11 miles, in British territory, and moiety of the cost of the bridge over the Nerbudda or in all, about 13 lakhs; the Begum of Bhopal has contributed 50 lakhs for the portion of the line in her dominions. All additional capital has to be provided by Government.

Currency of contracts.—The provisions in the contract between the Secretary of State and the Railway Company itself with reference to the termination of that contract extend and are applicable to the Bhopal-Itarsi railway.

Power of Company to surrender contracts.—Nil.

Terms of working.—The Company receive a sum bearing the same percentage to the gross receipts of the Bhopal-Itarsi railway as the aggregate working expenses of the whole open system of the Company (including the Bhopal-Itarsi railway) bear to the aggregate gross receipts of that system. The balance of the gross receipts are divided in perpetuity between the British Government and the Ruler of Bhopal in proportion to the capital contributed by each party. In the event of the railway being worked at a loss, such loss to be borne in the same proportion.

Rates and fares.—The same rates and fares as are in force on the Great Indian Peninsula railway.

Statistics of working—

Calendar year.	TABLE I.							TABLE II.							
	BHOPAL-ITARSI (BRITISH SECTION).					GAIN OR LOSS TO THE STATE.		BHOPAL-ITARSI (NATIVE STATE SECTION).				BRITISH SECTION.		NATIVE STATE SECTION.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Interest.	Gain or loss to the State.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.	Earnings per mile per week.	Proportion of expenses to earnings.	
Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.		Rs.		Rs.			
1880.	...	...	...	...	...	...	1,21,846	...	...	...	...	...	...	...	
1881.	...	...	...	...	...	...	15,78,157	...	...	...	...	...	...	...	
1882.	12,50,000	14,376	2,704	0.08	50,000	-47,296	34,60,091	14,376	2,704	0.08	70*	81.90*	...	...	
1883.	12,50,000	25,573	-9,135	...	50,000	-59,135	38,23,236	25,573	-9,135	...	49*	135.72*	...	...	
1884.	12,50,000	7,664	-1,406	...	50,000	-51,406	45,83,261	28,102	-5,152	...	40*	104.18*	...	...	
1885.	12,50,000	27,425	-3,874	...	50,000	-53,874	47,71,375	1,04,683	-14,789	...	†	†	†	†	
1886.	12,50,000	27,622	-3,240	...	50,000	-53,240	48,26,036	1,47,416	-12,501	...	†	†	†	†	
1887.	12,50,000	43,227	3,850	0.31	50,000	-46,150	48,09,939	1,85,576	14,813	0.31	†	†	†	†	
1888.	12,50,000	55,117	5,340	0.43	50,000	-44,660	48,01,701	1,86,548	18,072	0.38	†	†	†	†	
1889.	12,50,000	79,163	-5,422	...	50,000	-55,422	48,40,846	2,67,936	-18,351	...	117	106.85	117	106.85	
1890.	12,85,077	87,765	-16,572	...	50,351	-66,923	50,00,000	2,97,049	-56,093	...	130	118.88	130	118.88	
1891.	15,13,568	1,30,884	48,607	3.21	57,713	-9,106	50,00,000	4,66,431	1,75,154	3.46	200	62.50	199	62.50	
1892.	17,46,208	1,53,099	56,397	3.23	69,131	-12,734	50,00,000	4,47,797	1,65,883	3.32	226	63.16	195	62.96	
1893.	20,25,058	1,69,162	52,038	2.57	78,429	-26,391	50,00,000	4,24,236	1,30,925	2.62	251	69.17	185	69.17	
1894.	21,71,496	1,61,688	61,455	2.83	83,509	-22,054	50,00,000	3,80,217	1,44,679	2.89	237	61.98	166	61.97	
1895.	22,47,963	1,42,658	46,114	2.05	89,323	-43,209	50,00,000	3,18,074	1,02,821	2.06	209	67.68	138	67.64	
1896.	22,71,877	1,63,698	62,744	2.76	90,107	-27,363	50,00,000	3,61,363	1,38,532	2.77	241	61.75	157	61.63	
1897.	22,97,134	1,52,215	61,135	2.66	91,805	-30,671	50,00,000	3,31,379	1,33,070	2.66	223	59.84	144	59.84	
1898.	23,24,365	1,93,364	79,435	3.42	92,477	-13,042	50,00,000	4,17,010	1,71,375	3.43	284	58.81	181	58.90	
1899.	23,61,938	2,09,611	84,080	3.56	93,303	-9,223	50,00,000	4,47,225	1,79,444	3.59	307	59.89	194	59.88	
1900.	23,87,339	2,55,120	1,27,332	5.33	95,293	+32,039	50,00,000	7,90,489	2,67,288	5.35	375	50.12	332	50.06	
1901.	25,46,891	2,92,861	1,44,235	5.66	98,989	+45,246	50,00,000	5,85,152	2,88,838	5.77	430	50.75	254	50.64	
1902.	28,02,330	3,53,111	1,71,236	6.11	1,06,632	+64,604	50,00,000	6,30,020	3,16,683	6.33	518	51.51	274	49.74	
1903.	30,92,697	3,77,177	1,91,443	6.19	1,17,285	+74,158	50,00,000	6,31,911	3,21,328	6.43	559	49.48	327	48.84	

6 (c) Bhopal-Ujjain railway (5' 6" gauge).

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Bhopal to Ujjain	10-11-92	11-11-95	113.27	113.27

\* Represents figures for both sections of the Bhopal-Itarsi railway.  
† Included with the Great Indian Peninsula railway.

**APPENDIX 38—contd.**  
[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

**Appendix 38.**  
History of railways.

*History of railways constructed and in progress.*  
[For Index see page 168.]

Number Main head 6 Sub-heads (a) to (g). **GREAT INDIAN PENINSULA RAILWAY SYSTEM—contd.**  
**6 (c) Bhopal-Ujjain railway (5' 6" gauge)—concl'd.**

**Details of construction—**

*Permanent-way.*—The permanent-way consists of 75 lb. flat-footed steel rails laid on transverse steel sleepers.

*Ballast.*—The line is fully ballasted throughout.

*Fencing.*—The line is fenced only at, and in the vicinity of, stations, towns and important level crossings.

*Curves.*—There are no curves with a radius of less than 990 feet.

*Gradients.*—The ruling gradient is 1 in 150.

**Terms of contracts—**

The Bhopal-Ujjain and Bina-Goonā-Baran railways are worked under the following :—

*Agreements of—*15th July 1896 } (between the Government of Her Highness the Begum of Bhopal and that of His  
4th August 1896 } Highness the Maharaja Scindia of Gwalior and the Indian Midland Railway  
12th May 1899 } Company) for working.  
20th February 1899 (between the Government of His Highness the Maharao of Kotah and the  
Indian Midland Railway Company) for working.

27th February 1899 (between the Government of His Highness the Nawab of Tonk and the Indian  
Midland Railway Company) for working.

*Contract of—*21st December 1900 (between the Secretary of State and the Indian Midland Railway Company) for  
maintenance and working by the Great Indian Peninsula Railway Company.

The general conditions of the agreements are as follows :—

*Government aid.*—The line from Bina to Baran is owned jointly by the Darbars of the Gwalior, Tonk and Kotah States; and that from Bhopal to Ujjain by the Bhopal and Gwalior States.

*Currency of agreements.*—The agreements may be terminated on the expiry of ten years from the dates of the opening of the railways, or on the 30th June or 31st December in any year thereafter, on twelve months' notice in writing being given by either party.

*Terms of working.\**—The Company retain 50 per cent. of the gross receipts of the railway of each half year; and receive rent for works, &c., in sole and joint use at Bina and Ujjain Junctions respectively; and rent for the telegraph lines and instruments when not the property of the railway.

†The Company retain out of the gross receipts a sum (which includes any single item of capital expenditure, not exceeding Rs. 1,000 to be classed as a 'Minor Work' subject to a maximum charge on such account of Rs. 20 per mile open in each half-year) bearing the same percentage to the entire gross receipts of the railway for each half-year as the aggregate working expenses of the whole system of the Company (including the railway) bear to the gross receipts of that system for the same half-year.

*Rates and fares.*—The same rates and fares as are in force from time to time on the Great Indian Peninsula railway.

**Statistics of working—**

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Earnings per mile per week.	Pro: of exp: to earnings.
	Rs.	Rs.	Rs.		Rs.	
1892	88,462	...	...	...	...	...
1893	22,76,863	...	...	...	...	...
1894	53,53,849	...	...	...	...	...
1895	69,69,331	...	...	...	...	...
1896	77,77,604	3,69,114	1,80,218	2.32	63	51.17
1897	75,36,180	3,72,337	1,84,660	2.45	63	50.40
1898	75,85,789	4,16,940	2,05,051	2.70	71	50.82
1899	76,54,290	5,82,341	2,77,911	3.63	99	52.28
1900	76,88,020	9,46,349	4,65,681	6.06	161	50.79
1901	77,61,569	5,45,956	2,62,044	3.38	93	52.00
1902	78,02,855	5,82,063	2,92,357	3.75	99	52.36
1903	78,11,402	4,44,766	2,23,049	2.86	76	49.85

**6 (d) Bina-Goonā-Baran railway (5' 6" gauge)—**  
**Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
From the joint boundary of the Indian Midland and Bina-Goonā-Baran railways, a point 2.00 miles from the centre of Bina station, to Goona	2-3-92	23-9-95	71.73	...	1895 to 1898	72
From centre of Goona station (mile 216-3,402 feet) to end of Baran station (mile 290-2,850 feet)	28-1-97	15-5-99	73.90	...	1899 to 1903	146
<b>TOTAL, BINA-GOONĀ-BARAN</b>	...	...	...	145.63	...	...

\* These terms are applicable only to those portions of the Bhopal-Ujjain and Bina-Goonā-Baran railways which are owned by the Gwalior State.

† These terms are applicable only to those portions of the Bhopal-Ujjain and Bina-Goonā-Baran railways which are owned by the Bhopal, Tonk and Kotah Darbars.

**Appendix 38.**  
History of railways.

**APPENDIX 38—contd.**

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*  
[For Index see page 168.]

Number <sup>Main-head 6</sup> <sub>Sub-heads (a) to (g)</sub> **GREAT INDIAN PENINSULA RAILWAY SYSTEM—contd.**

**6 (d) Bina-Goonna-Baran railway (5' 6" gauge)—concl'd.**

Details of construction—

*Permanent-way.*—On the Bina-Goonna section, the permanent-way consists of 75 lb. steel rails laid on steel transverse sleepers. On the Goonna-Baran section, the permanent-way consists of 75 lb flat-footed steel rails with 4 hole fish-plates laid on deodar sleepers.

*Ballast.*—The line is fully ballasted throughout.

*Fencing.*—The line is fenced throughout from Bina to Goonna, but the Goonna-Baran section is unfenced except at stations.

*Curves.*—There are no curves with a radius of less than 990 feet.

*Gradients.*—The ruling gradient is 1 in 125.

*Terms of contract.*—Those mentioned under the Bhopal-Ujjain railway (page 215) apply.

Statistics of working—

TABLE I.					TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Earnings per mile per week.	Pro: of exp: to earnings.
	Rs.	Rs.	Rs.		Rs.	
1891 . . . . .	51,905	...	...	...	...	...
1892 . . . . .	2,57,611	...	...	...	...	...
1893 . . . . .	85,18,701	...	...	...	...	...
1894 . . . . .	47,79,618	...	...	...	...	...
1895 . . . . .	49,81,035	...	...	...	10	54.42
1896 . . . . .	54,16,074	91,140	36,821	0.68	24	59.60
1897 . . . . .	87,73,621	1,02,386	43,446	0.50	27	57.57
1898 . . . . .	97,66,068	1,30,004	58,040	0.59	35	55.98
1899 . . . . .	99,31,880	2,67,359	1,26,108	1.27	43	52.83
1900 . . . . .	1,00,21,605	4,34,847	2,20,490	2.20	57	49.29
1901 . . . . .	1,00,43,236	2,52,716	1,32,970	1.22	38	51.34
1902 . . . . .	99,14,442	2,38,625	1,19,792	1.21	32	52.71
1903 . . . . .	99,62,459	3,21,585	1,62,447	1.68	42	49.49

**6 (e) Indian Midland railway (5' 6" gauge)—**

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
<i>Main line—</i>						
Bhopal to Jhansi . . . . .	*	1-1-89	180.49		1878	34
Jhansi to Gwalior . . . . .	11-6-86	1-3-89	60.39		1879	66
Gwalior to Hatampur . . . . .	24-8-77	20-12-79	32.40		1880	66
Hatampur to Dholpur . . . . .		15-5-81	6.56		1881	75
Dholpur to Agra Cantonment . . . . .	16-2-76	10-1-78	33.69		1882	75
<b>Total, main line</b> . . . . .	...	...	...	315.52	1883	75
<i>Branches—</i>						
<i>Manikpur branch—</i>						
Jhansi to Mau Ranipur . . . . .	23-8-83	5-6-89	39.96		1884	75
Mau Ranipur to Banda . . . . .		1-8-89	78.96		1885	75
Banda to Manikpur . . . . .		15-2-89	61.45		1886	117
<i>Cawnpore branch—</i>						
Jhansi to Chaunrah . . . . .	Cawnpore to Kalpi, 12-3-84; Kalpi to Jhansi, 3-3-86.	1-2-88	94.99		1887	117
Chaunrah to Cawnpore . . . . .		1-4-86	40.44		1888	211
			180.37		1889	677
<i>Bina to point of junction with Bina-Goonna-Baran railway.</i>	...	1-5-95	2.00		1890	677
<i>Bhopal to point of junction with Bhopal-Ujjain railway.</i>	...	11-11-95	0.21		1891	677
			2.21		1892	677
<i>Bina-Saugor-Katni branch—</i>						
Bina to Saugor . . . . .	Aug.'87	5-6-89	46.24		1893	677
Saugor to Damoh . . . . .	Dec.'95	26-3-98	47.83		1894	677
Damoh to Katni . . . . .	Jan.'88	1-1-99	67.88		1895	679
From centre of Katni-Murwara station to junction with Bengal-Nagpur railway.	...	1-1-90	0.71		1896	680
Connecting link with East Indian railway at Katni-Murwara from points in Indian Midland railway main line to junction with East Indian railway.	...	1-1-99	0.34		1897	680
			163.00		1898	727
<b>Ait to Kunch</b> . . . . .	23-9-02	7-12-03	8.50		1899	796
<b>Total branches</b> . . . . .	...	...	...	489.51	1900	796
<b>TOTAL OPEN MILEAGE, INDIAN MIDLAND RAILWAY</b>	...	...	...	805.03	1901	796
					1902	797
					1903	805

\* Sanctioned in sections as follows:—Bhopal to Bhilsa, 2nd March 1886; Bhilsa to Basoda, 24th June 1886; Basoda to Lalitpur, 24th December 1886 and Lalitpur to Jhansi, 21st September 1886.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number  $\frac{\text{Main head 6}}{\text{Sub-heads (a) to (g)}}$  GREAT INDIAN PENINSULA RAILWAY SYSTEM—*contd.*6 (e) Indian Midland railway (5' 6" gauge)—*contd.*

## Details of construction—

*Permanent-way.*—The main line, with the branches from Jhansi to Manikpur, Jhansi to mile 325.50 (Cawnpore branch) and Bina to Katni, is laid with 80 lb. flat-footed steel rails on cast-iron oval pot sleepers. From mile 325.50 (Cawnpore branch) to mile 331 (0.75 mile beyond Jumna bridge) the permanent-way consists of East Indian railway 75 lb. double headed steel rails laid on wooden sleepers, and from there to Cawnpore a length of about 46 miles on Denham and Olpherts' sleepers. The latter are now being gradually replaced by iron pots of the Great Indian Peninsula pattern, 0.85 mile having been laid to 31st December 1902. The East Indian railway type rails and wooden sleepers between miles 325.50 and 331.00 are also being renewed with Indian Midland railway 80 lb. flat-footed steel rails and cast iron oval pots.

*Ballast.*—The line is fully ballasted throughout.

*Bridges.*—See Appendix 36.

*Fencing.*—The line is fenced throughout, except between Banda and Jhansi on the Jhansi-Manikpur section. On the Saugor-Katni branch, fencing has been erected through Saugor Cantonments and at Damoh and Katui-Murwara stations only.

*Curves.*—There are no curves with a radius of less than 990 feet.

*Gradients.*—The ruling gradient between Bhopal and Jhansi is 1 in 200; between Jhansi and Agra, 1 in 150 and between Jhansi and Manikpur, 1 in 125. The Jhansi-Cawnpore branch is practically level except at bridge approaches where the gradients are 1 in 250 and 1 in 300; and between Jhansi and Garhmanu where it is 1 in 200. On the Bina-Katni-Murwara branch the gradient is 1 in 200, except for 3 miles on the Khurai-Mundra section where it is 1 in 100 and on the Ghatra Salais section where there are short lengths of 1 in 125 and 6 miles of 1 in 100.

## Terms of contracts—

The railway is worked under the following contracts:—

*Contract of*—2nd October 1885—Indian Midland Railway Company's principal contract.

13th March 1890—Contract for the acquisition of the Scindia railway.

13th June 1896—Contract for the Saugor-Katni railway.

21st December 1900—Contract for the transfer of the working of the Indian Midland railway to the Great Indian Peninsula Railway Company.

*Government aid.*—Interest at 4 per cent. per annum in sterling is guaranteed on £3,000,000 share capital. On further capital that may be required, the guarantee to be 4 per cent. or such other rate as may be agreed upon. A considerable amount of capital has been advanced by Government for the existing system, and, in the case of the Saugor-Katni extension, it has been agreed that all money required for expenditure in India shall be supplied by the Government, the Company only raising the amount required for expenditure in England. Land was also provided free.

*Currency of contracts*—(1) *Indian Midland railway contract.*—The contract of 1885 may be determined by Government, by giving 12 months' previous notice, on the 31st December 1910, or on the 31st December of any succeeding tenth year. Government may also terminate the contract at any time, on six months' notice, if the Company fail to fulfil their obligations or if the line be worked at a loss for not less than three half-years continuously. On the termination of the contract, the Company is to hand over to Government the railway and all its belongings of every description and Government is to repay the amount at par of the share capital which has been paid by the Company. The contract of 1900 is current for a period of 25 years from the 1st July 1900. But the Indian Midland Railway Company's right to a 4 per cent. guarantee on share capital and one-fourth share of surplus profits (as stated below) remains in full force till the termination of either the contract of 1885 or that of 1900.

(2) *Scindia and Saugor-Katni railways contracts.*—The contracts of 1890 and 1896 run concurrently with that of 1885, to which they are supplemental.

*Power of Company to surrender contract.*—Nil.

*Terms of working:*—From the gross earnings for any calendar year will be deducted working expenses and the net earnings applied towards payment to Government of interest on advances of capital made by it to the Company and for repayment of the interest paid by it to the Company for that year, the balance to be divided in proportion of three-fourths to Government and one-fourth to the Company.

*Rates and fares.*—Certain maxima and minima have been fixed within which the Company is permitted to vary its rates.

Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 6</sup> <sub>Sub-heads (a) to (g)</sub> GREAT INDIAN PENINSULA RAILWAY SYSTEM—*contd.*

6 (e) Indian Midland railway (5' 6" gauge)—*concl'd.*

Statistics of working—*concl'd.*

Calendar year.	TABLE I.							TABLE II.			
	Capital outlay to end of each year.	Gross earnings.	Net traffic earnings.	Per cent. on Capital outlay.	Interest.	Com-pany's share of net traffic receipts.	Gain or loss to the State.	SCINDIA.		INDIAN MIDLAND.	
								Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.
Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1878	...	...	...	...	...	...	...	54	133'30	...	...
1879	78,22,551	90,916	—33,772	...	3,06,178	...	—3,37,950	89	134'95	...	...
1880	81,63,253	2,01,823	20,129	0.25	3,57,620	...	—3,37,491	58	89'05	...	...
1881	38,16,663	3,01,681	78,342	0.91	3,48,809	...	—2,70,467	81	77'35	...	...
1882	87,53,714	3,29,299	92,231	1.05	3,47,303	...	—2,55,072	85	71'99	...	...
1883	92,92,537	3,38,511	1,59,716	1.72	3,56,750	...	—1,97,034	87	52'82	...	...
1884	1,18,68,111	3,68,826	1,72,603	1.45	3,74,122	...	—2,01,519	95	53'14	...	...
1885	1,60,14,107	3,94,081	1,98,680	1.24	6,48,112	...	—4,48,432	101	49'33	...	...
1886	2,48,06,293	3,91,832	2,14,526	0.86	18,69,268	...	—16,51,742	101	49'69	56	82'03
1887	5,10,96,457	6,32,204	2,78,043	0.54	20,00,184	...	—17,22,141	117	46'62	81	80'63
1888	6,96,63,213	10,27,638	3,74,204	0.54	28,55,488	...	—24,81,284	95	47'74	99	72'53
1889	7,84,45,085	30,69,255	6,33,111	0.81	31,24,456	...	—24,91,045	...	...	92	77'32
1890	8,32,79,427	31,22,365	5,99,780	0.72	36,09,286	...	—30,08,506	...	...	86	80'80
1891	8,52,46,148	41,62,361	13,52,172	1.59	33,12,200	...	—19,60,029	...	...	115	67'51
1892	8,65,79,006	44,77,625	17,26,260	1.99	37,23,985	...	—19,97,725	...	...	124	61'45
1893	8,71,62,843	44,59,053	17,00,409	1.95	41,40,194	...	—24,39,785	...	...	123	61'87
1894	8,78,06,437	52,22,033	22,02,334	2.51	42,59,815	...	—20,57,431	...	...	144	57'83
1895	8,81,49,985	44,91,707	16,48,360	1.87	45,97,495	...	—23,49,135	...	...	124	63'30
1896	9,25,53,896	48,51,951	20,17,929	2.18	44,23,983	...	—24,06,154	...	...	134	58'41
1897	9,77,94,421	54,89,540	24,06,565	2.46	42,58,893	...	—18,47,328	...	...	150	56'16
1898	9,96,74,805	56,25,823	25,11,911	2.52	39,99,986	...	—14,88,075	...	...	147	55'36
1899	10,16,34,072	64,77,226	27,82,950	2.74	39,66,461	...	—11,83,511	...	...	162	57'03
1900	10,31,35,002	90,60,560	48,72,287	4.72	38,18,460	...	+10,53,827	...	...	213	46'29
1901	10,58,27,081	82,43,068	42,50,587	4.02	38,62,861	1,68,164	+ 1,79,562	...	...	199	46'43
1902	10,62,11,714	90,49,628	44,86,267	4.22	41,04,505	7,330	+ 3,74,432	...	...	209	50'43
1903	10,98,96,302	80,86,118	40,92,942	3.73	41,85,502	2,062	— 94,622	...	...	180	49'35

6 (f) Gwalior Light railway (2' 0" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
Gwalior to Sipri	...	2-12-99	Miles. 73'81	Miles. 126'14	1899 to 1903	Miles. 126
Gwalior to Bhind	...	2-12-99	52'33			
Total open mileage	...	...	...	126'14		
<i>Line under construction or sanctioned for construction.</i>						
Gwalior to Jaura	2-10-01	1-1-04	31'34	57'86		
Jaura to Subalgarh			26'52			
Total line under construction	...	...	...	57'86		
GRAND TOTAL	...	...	...	184'00		

Details of construction—

*Permanent-way.*—The permanent-way consists of 30 lb. steel rails laid on sal and steel trough sleepers, Indian State railway pattern.

*Ballast.*—The line is fully ballasted throughout.

*Fencing.*—The line is fenced between Gwalior and Morar only.

*Curves.*—The sharpest curve in station yards has a radius of 200 feet. The sharpest curve out of stations has a radius of 955 feet.

Terms of contract—

The railway is worked under the following agreement:—

*Agreement of*—11th October 1900 (between the Government of His Highness the Maharaja Scindia of Gwalior and the Indian Midland Railway Company) for working.

The general conditions of the agreement are as follows:—

*Government aid.*—Nil. The Gwalior Light railway is the property of the Gwalior Durbar.

*Currency of contract.*—Either party may determine the agreement by giving three months' notice.



APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 8</sup> Sub-heads (a) to (g) GREAT INDIAN PENINSULA RAILWAY SYSTEM—*concl'd.*6 (f) Gwalior Light railway (2' 0" gauge)—*concl'd.*Terms of contract—*concl'd.*

*Terms of working.*—The gross receipts are collected and treated as receipts of the Indian Midland Railway Company and from them are deducted the actual expenditure in the Traffic and Audit departments for station and train staff, audit clerks, on printing and stationery and stores consumed and all other expenses connected therewith and 5 per cent. per annum for construction and maintenance of accommodation required for the exclusive use of the Light railway; 7½ per cent. for ballast, permanent-way, etc., including maintenance and renewal plus 15 per cent. to cover supervision and general charges other than those rendered in the accounts. The balance is paid over to the Gwalior Durbar.

*Rates and fares.*—Rates and fares are the same as those in force on the Great Indian Peninsula railway.

## Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1896 . . . . .	2,166	...	...	...	...	...
1897 . . . . .	1,03,552	...	...	...	...	...
1898 . . . . .	9,30,815	...	...	...	...	...
1899 . . . . .	22,79,267	4,094	—4,113	...	6	258.32
1900 . . . . .	27,10,557	84,617	—137	...	13	100.16
1901 . . . . .	31,07,277	82,227	—520	...	13	100.63
1902 . . . . .	39,77,104	1,09,577	9,346	0.33	17	91.47
1903 . . . . .	41,76,953	1,66,002	68,226	1.63	25	58.90

## 6 (g) Agra-Delhi Chord railway (5' 6" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Agra to Delhi . . . . .	15-9-98	*1-10-04	120.10	120.10

The line is under construction and will be worked, on completion, by the Great Indian Peninsula Railway Company.

Number <sup>Main head 7</sup> Sub-heads (a) to (i) MADRAS RAILWAY SYSTEM—

Lines comprising system.—The Madras railway system is made up of—

	Open line.	Under construction.	Total.
	Miles.	Miles.	Miles.
(a) Madras railway . . . . . (5' 6" gauge)	899.91	3.90	903.81
(b) Kolar Gold-fields railway . . . . . (5' 6" gauge)	9.88	...	9.88
(c) Madras railway (North-East line), East Coast State railway . . . . . (5' 6" gauge)	497.19	0.93	498.12
(d) Nilgiri State railway . . . . . (3' 3½" gauge)	18.93	11.50	28.49
(e) Shoranur-Cochin railway . . . . . (3' 3½" gauge)	64.75	...	64.75
(f) Ashikal-Mangalore Extension . . . . . (5' 6" gauge)	...	77.27	77.27
(g) Salem-Attur . . . . . (5' 6" gauge)	...	36.03	36.03
(h) Morappur-Dharmapuri . . . . . (2' 6" gauge)	...	18.36	18.36
(i) Tirupattur-Krishnagiri . . . . . (2' 6" gauge)	...	25.43	25.43
Total	1,488.72	173.45	1,662.17

## Running powers—

## Foreign lines over Home line—

	Miles.
Nizam's Guaranteed State railway, distant signal at Bezwada to Bezwada station . . . . .	0.89
Bengal-Nagpur railway, Waltair to Vizagapatam (including Wharf and Swamp lines) . . . . .	4.97
Southern Mahratta railway, Tadepalli to Bezwada . . . . .	2.97
	8.83

The Madras railway runs from Madras to Arkonam, where it divides into two branches—one proceeding in a north-westerly direction to Raichur, the other in a south-westerly direction to Ashikal. The latter has branches to Ranipet, Bangalore, Mettupalaiyam and Palghat.

The main line originally commenced at Rayapuram, but on the opening of the length between Veyasarpandy Junction and the Central station this became a portion of the main line, and the old line from the junction to Rayapuram was then treated as a branch. The line from Bangalore Cantonment to Bangalore City was constructed as a part of the Mysore State railway, but was subsequently made over to the Madras Railway Company. The portion from Gudur to Nellore which was originally laid on the 3' 3½" gauge was converted to 5' 6" gauge, on the opening of the East Coast State railway. The working of the East Coast State railway (North-East line) was taken over by the Madras Railway Company from the 1st January 1901.

\* Probable date of opening.

† Commencement of work not yet authorized.



APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main-head 7</sup> <sub>Sub-heads (a) to (i)</sub>. MADRAS RAILWAY SYSTEM—*contd.*7 (a) Madras railway proper (5' 6" gauge)—*contd.*

## Details of construction—

**Permanent-way.**—The line was originally laid with iron rails weighing 65 to 84 lbs. per yard on jungle wood sleepers. The latter were found to be very short lived and were replaced by cast iron pot sleepers. The iron rails from Madras to 189th mile were renewed with 75lb. double-headed steel rails and afterwards other sections with 75lb., 76lb. and 80lb. bull-headed steel rails. The section, Calicut to Cannanore, is laid with 60lb. flat-footed steel rails on wooden sleepers. The present type of permanent-way is 80lb. bull-headed steel rails on cast iron pots, each weighing 112 lbs.

**Ballast.**—The line is ballasted with stone and sand, chiefly the former.

**Bridges.**—See Appendix 36.

**Fencing.**—The line is fenced throughout.

**Curves.**—There are no curves with a radius of less than 1,000 feet except on the Beach line extension where the minimum radius of curve is 700 feet.

**Gradients.**—The ruling gradient between Madras and Mallapuram is 1 in 200; between Mallapuram and Calicut, 1 in 100 (except at Mallapuram Ghât where it is 1 in 70 and at Walayar Ghât where it is 1 in 62); between Calicut and Cannanore, 1 in 150; between Jalarpet and Bangalore, 1 in 100 (except at Kuppam Ghât where it is 1 in 66); between Podanur and Mattupalayam, 1 in 80; between Olavakot and Palghat, 1 in 160; between Wallaja Road and Ranipet, 1 in 150 and between Arkonam and Raichur, 1 in 80 (except at Ballapalli Ghât where it is 1 in 66).

## Terms of contracts—

The Madras railway is worked under the following contracts:—

*Contracts of*—22nd December 1852 (South-West line).

19th December 1855 (South-West line).

13th August 1858 (North-West line).

2nd January 1871 (Amalgamation).

18th January 1901 (Calicut-Azhikal extension).

1st November 1901 Walajah Road (Arcot)-Ranipet branch.

The general conditions of the contracts are as follows:—

**Government aid.**—Guarantee of interest in sterling at 5 per cent. for term of contract. On some portion of the share capital and on debentures lower rates of interest are guaranteed. Land also was provided free of cost.

**Currency of contracts.**—In ninety-nine years from 1st April 1857, the line reverts to Government who would then pay only for the rolling-stock at its fair value. Provided the Company had not previously given notice terminating the contract. Government may determine the contract by purchase within six months after the expiration of 25 or 50 years of the term, at the mean market value of the shares during the three preceding years. Possession to be taken of the railway at the half-yearly day next but one following the notice. Government may also determine the contract at any time, on giving three months' notice, if the Company fail to observe their obligations, Government repaying the capital expended.

NOTE.—Government relinquished their right to determine the contract at the end of the 25th year and the only remaining opportunity of giving notice of purchase will be in 1907 within six months after 1st April.

**Power of Company to surrender contract.**—The Company may surrender, on six months' notice, at any time, receiving back the capital expended.

**Terms of working.**—As to the lines covered by the contract of 2nd January 1871. After deducting the working expenses (which include any single item of capital expenditure, not exceeding Rs. 1,000, classed as a 'Minor Work,' subject to a maximum charge on such account of Rs. 15 per mile of line open in each half-year) the surplus profits after repayment of the guaranteed interest of each half-year converted at the rate of exchange of 1s. 10d. per rupee are divided equally between Government and the Company. As to the Calicut-Azhikal railway working expenses are calculated at the average rate prevailing in each half-year over the entire system, and if the net earnings in any half-year exceed the interest charges converted at the prescribed rate of exchange, one-fifth belongs to the Company; but any deficiency in one half-year is a first charge on the net receipts of that and the next succeeding half-year of every line of railway for the time being belonging to the Company. Subject to the provisions in the contract of 18th January 1901, the covenants and provisions of the several principal Indentures apply to the Calicut-Azhikal railway.

**Rates and fares.**—Under the contract, Government fixed maxima rates and fares which cannot be altered by Government, until the net receipts exceed 10 per cent. on the capital outlay. The fixed maxima rates cannot be altered by the Company without Government sanction. Authority, however, has been given to the Company, by an executive order, to vary their rates within the prescribed maxima without reference to Government.

Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.  
[For Index see page 168.]

Number <sup>Main-head 7</sup> <sub>Sub-heads (a) to (i)</sub> MADRAS RAILWAY SYSTEM—contd.

7 (a) Madras railway proper (5' 6" gauge)—concl'd.

Statistics of working—

TABLE I.								TABLE II.		
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Guaranteed Interest.	Company's share of net traffic receipts.	Gain or loss to the State.	Calendar year.	Earnings per mile per week.	Proportion of expense to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.		Rs.	
1879 . . . . .	11,45,68,493	66,26,486	20,75,170	1.81	57,04,205	...	-36,29,095	1856	75	51.66
1880 . . . . .	11,39,78,220	61,62,546	19,57,137	1.73	57,16,332	...	-37,59,195	1857	91	47.13
1881 . . . . .	11,40,07,808	63,11,312	20,75,856	1.82	57,16,365	...	-36,40,509	1858	93	55.53
1882 . . . . .	11,39,69,608	69,18,571	25,70,841	2.25	56,89,011	...	-31,18,170	1859	122	60.35
1883 . . . . .	11,39,92,074	66,81,909	25,26,549	2.22	57,03,416	...	-31,81,867	1860	117	73.50
1884 . . . . .	11,42,51,164	71,41,318	29,35,687	2.57	64,23,432	...	-34,87,745	1861	91	71.08
1885 . . . . .	11,50,33,160	76,57,993	32,79,168	2.85	67,36,206	...	-34,57,038	1862	84	74.02
1886 . . . . .	11,59,81,297	79,66,097	32,29,243	2.78	71,24,952	...	-38,95,709	1863	110	68.57
1887 . . . . .	11,40,70,190	81,72,535	28,80,029	2.52	73,20,207	...	-44,40,178	1864	133	49.62
1888 . . . . .	11,53,78,656	85,31,054	35,21,615	3.05	76,23,851	...	-41,02,236	1865	145	45.69
1889 . . . . .	11,63,84,605	91,10,594	37,38,421	3.21	76,69,934	...	-39,31,513	1866	147	45.62
1890 . . . . .	11,79,84,234	95,06,184	45,21,480	2.83	68,85,958	...	-23,64,478	1867	153	43.47
1891 . . . . .	11,89,52,099	93,44,638	39,06,529	3.28	73,92,186	...	-34,85,657	1868	181	41.48
1892 . . . . .	11,97,71,835	96,24,670	42,92,133	3.53	83,62,369	...	-40,70,236	1869	171	49.16
1893 . . . . .	12,03,89,499	1,05,05,036	54,21,742	4.50	84,82,732	...	-30,60,990	1870	146	52.84
1894 . . . . .	12,05,25,315	1,03,21,012	49,47,863	4.10	96,56,469	...	-47,08,606	1871	139	51.27
1895 . . . . .	12,08,91,797	1,12,08,407	58,10,310	4.80	96,17,435	53,195	-33,60,320	1872	143	52.19
1896 . . . . .	12,11,52,091	1,08,80,251	53,85,291	4.44	89,92,684	...	-36,07,393	1873	157	56.94
1897 . . . . .	12,15,01,808	1,14,65,314	59,82,565	4.92	84,81,597	91,135	-25,90,167	1874	132	64.67
1898 . . . . .	12,22,69,990	1,07,20,483	54,12,657	4.43	82,40,191	90,546	-29,18,080	1875	144	70.28
1899 . . . . .	12,34,93,025	1,05,45,102	50,16,254	4.06	80,58,144	...	-30,41,890	1876	159	64.38
1900 . . . . .	12,62,82,369	1,18,39,222	53,70,820	4.25	81,34,701	...	-27,53,881	1877	225	59.26
1901 . . . . .	13,13,51,379	1,14,86,803	57,85,603	4.40	83,15,733	...	-25,30,130	1878	148	76.05
1902 . . . . .	13,50,23,683	1,18,41,074	57,91,420	4.29	84,41,464	...	-26,50,044	1879	148	68.68
1903 . . . . .	13,64,08,517	1,26,21,022	55,67,864	4.08	84,39,831	...	-28,71,967	1880	138	63.24
								1881	141	67.11
								1882	155	62.34
								1883	148	61.90
								1884	160	58.89
								1885	171	57.18
								1886	178	59.46
								1887	189	64.76
								1888	195	68.72
								1889	209	58.97
								1890	218	52.44
								1891	214	58.20
								1892	221	55.40
								1893	241	48.39
								1894	237	52.06
								1895	257	47.55
								1896	249	50.50
								1897	263	47.65
								1898	248	49.51
								1899	240	52.43
								1900	254	51.75
								1901	253	49.63
								1902	256	50.25
								1903	261	55.68

7 (b) Kolar Gold-fields railway (5' 6" gauge).

The line was constructed by the Mysore State in order to provide facilities for the gold-fields.

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Bowringpet to Marikuppam . . . . .	July 1892	1-6-94	9.88	9.88

Details of construction—

*Permanent-way.*—The line was originally laid with Madras railway second-hand doubled-headed 75lb. iron rails on new cast iron pot sleepers, but in consequence of the excessive wear due to the heavy traffic passing over this branch, the alignment has been improved and iron rails have been replaced by 76lb. steel rails.

*Ballast.*—The line is ballasted with stone and sand, chiefly the former.

*Fencing.*—The line is fenced throughout.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 60.

\* Converted at the current rates of exchange.

† According to...

## APPENDIX 38—contd.

[ Appendices 4 (portion), 6, 7 and 47 in Report for 1902. ]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main-head 7</sup> <sub>Sub-heads (a) to (c).</sub> **MADRAS RAILWAY SYSTEM—contd.**  
**7 (b) Kolar Gold-fields railway (5' 6" gauge)—concl'd.**

## Terms of contract—

The railway is worked under the following agreement :—

*Agreement of*—1st July 1902 (between the Mysore Government and the Madras Railway Company) for working and maintenance with effect from 1st January 1901.

The general conditions of the agreement are as follows :—

*Government aid.*—The line is the property of the Mysore State.

*Currency of agreement.*—The agreement to remain in force, subject to six months' notice, from either side on the 30th of June or the 31st of December of any year.

*Terms of working.*—The Company to charge for working and maintenance the same proportion of gross earnings which the working expenses of the whole system including this line bear to the gross earnings of that system and 5 per cent. of the gross earnings of the railway for rolling-stock.

*Rates and fares.*—Subject to certain special rates and fares, the same rates, etc., as are in force from time to time on the Madras railway.

## Statistics of working—

TABLE I.					TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1892	27,661	...	...	...	...	...
1893	5,27,634	...	...	...	...	...
1894	6,56,175	75,771	29,273	4.46	249	61.37
1895	6,61,654	1,52,953	66,379	10.03	294	56.60
1896	7,45,004	1,55,317	63,287	8.50	299	59.25
1897	7,91,074	2,08,854	90,278	11.41	402	56.77
1898	8,09,537	2,04,002	82,138	10.15	392	59.82
1899	10,79,552	1,77,667	56,327	5.27	342	68.01
1900	10,77,901	2,06,892	67,093	6.22	402	67.88
1901	11,20,330	2,17,661	91,877	8.20	421	57.79
1902	11,38,480	2,16,629	84,864	7.45	423	60.83
1903	11,62,504	2,07,257	75,237	6.47	403	67.70

**7 (c) Madras (North-East line) railway (5' 6" gauge)—**  
**Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
<b>Main line—</b>						
Washermenpet to Ennur	August 1894	22-2-96	8.25		1893	266
Ennur to Gudur	July 1895	23-2-99	75.25		1894	354
Gudur to Nellore		*1-11-88	23.75		1895	427
Nellore to Kistna Canal Junction		20-12-98	155.00		1896	512
Kistna Canal Junction to Bezwada		15-7-97	3.06		1897	547
Bezwada to Kovvur		20-2-98	88.24		1898	727
Kovvur to Rajahmundry	July 1899	6-8-00	4.69		1899	869
Rajahmundry to the Junction point near Waltair		15-7-98	119.80		1900	808
Simachellam Junction point near Waltair station to Waltair		15-7-98	4.25		1901	497
Tadepalli to Bezwada		1-1-94	§ 2.97		1902	487
				485.26	1903	497
<b>Branches—</b>						
Samalkot Junction to Cocanada port branch	July 1899	15-7-98	9.75			
Waltair to end of branch near Vizagapatam station		15-7-98	2.18			
<b>Total Branch</b>				11.93		
<b>TOTAL OPEN MILEAGE, MADRAS (NORTH-EAST LINE) LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>				497.19		
Korukkupetai to Basin Road	11th April 1901	† 1-7-04	0.98	0.98		
<b>GRAND TOTAL</b>				498.12		
<b>DOUBLE LINE—</b>						
Simachellam junction point near Waltair station to Waltair			4.25			

\* The date of original 3' 3½" gauge; converted to and opened on the 5' 6" gauge on the 1st November 1899.  
 † Probable date of opening. ‡ Includes Northern section of the East Coast State railway. § 3' 3½" gauge.

Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 188.]

Number  $\frac{\text{Main-head 7}}{\text{Sub-heads (a) to (i)}}$  MADRAS RAILWAY SYSTEM—*contd.*

7 (c) Madras (North-East line) railway (5' 6" gauge)—*concl'd.*

Details of construction—

*Permanent-way.*—The permanent-way consists of flat-footed 75lb. steel rails laid on wooden and pea-pod steel sleeper.

*Ballast.*—The line is ballasted with stone and sand, chiefly the former.

*Bridges.*—See Appendix 36.

*Fencing.*—The line is fenced only in the vicinity of towns, stations and level crossings.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient between Madras and Kistna canal is 1 in 200, and between Kistna canal and Waltair, 1 in 150.

Terms of contract—

The line is worked under the following contract:—

*Contract of*—31st December 1902 (between the Secretary of State and the Madras Railway Company) for maintenance, management and working.

The general conditions of the agreement are as follows:—

*Currency of contract.*—The contract is to continue in force till the 31st December 1907. If the original contract with the Company, dated the 2nd January 1871, is terminated for any reason under the provisions thereof prior to the expiry of the term of this contract the latter also will, *ipso facto*, terminate at the same time. The contract may also be terminated after twelve months' notice on the 1st April 1904, or on the 1st April of any subsequent year.

If the contract is determined by notice at any time previous to the 1st April 1907, and if the ratio of the working expenses to the gross earnings of the Company shall have been raised by reason of the Company having worked the State railway under this contract, so that the total working expenses of the Company's system from the 1st January 1901 to the termination of the contract shall exceed 50 per cent. of the total gross earnings of the Company's system during such period, the Company will be entitled to suitable compensation for such increase.

*Terms of working.*—The working expenses of the State railway are to include per half-year any single item of capital expenditure, not exceeding Rs. 1,000, classed as a 'Minor Work,' subject to a maximum charge on such account of Rs. 15 per mile of line open in each half-year; a sum not exceeding Rs. 40 for every mile of line open to traffic for Government supervision and control; and the following:—

The actual expenditure incurred under the account heads of "Maintenance and renewal of permanent-way," "Repairs of bridges, etc., wages and materials," "Conservancy of rivers," and "Repairs of staff quarters."

The share of the general working expenses of the system under the remaining heads of account in proportion to the gross earnings of the State railway.

The allowances and interest payable under the contract for the use by the State railway of the Company's terminal station at Madras.

The expenditure incurred by the Company in replacing or repairing the State railway locomotive engines and tenders.

The balance of the gross earnings to belong to Government.

*Rates and fares.*—Government exercise full control over rates and fares.

Government have reserved the power to require at six months' notice the retransfer of the Junction station at Waltair and the branch taking off from the Junction to Vizagapatam.

Statistics of working\*—

Calendar year.	TABLE I.					TABLE II.		
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Interest.	Gain or loss to the State.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	
1890 . . . . .	3,79,490	...	...	...	7,590	-7,590	...	...
1891 . . . . .	1,10,69,894	...	...	...	2,33,786	-2,33,786	...	...
1892 . . . . .	2,60,11,131	...	...	...	7,41,621	-7,41,621	...	...
1893 . . . . .	3,58,67,473	4,98,660	1,53,732	0.43	13,48,868	-11,95,136	68	84.69
1894 . . . . .	4,39,47,727	14,80,678	1,50,921	0.34	15,92,909	-14,41,968	98	89.91
1895 . . . . .	5,09,41,376	19,04,251	3,29,184	0.65	19,12,886	-15,83,702	90	83.71
1896 . . . . .	6,33,64,948	24,66,578	5,39,901	0.85	23,72,975	-18,32,974	94	77.98
1897 . . . . .	7,22,26,070	29,21,162	8,92,453	1.23	26,96,796	-18,44,343	100	69.59
1898 . . . . .	8,24,02,269	28,10,742	6,69,831	0.81	30,98,828	-24,28,997	94	78.46
1899 . . . . .	8,65,93,097	43,92,237	15,37,294	1.78	35,14,602	-19,77,308	104	65.11
1900 . . . . .	8,80,71,731	64,04,543	26,54,794	3.01	34,46,555	-7,91,761	143	56.10
1901 . . . . .	6,07,27,375	45,68,155	20,31,210	3.34	24,51,072	-4,19,862	176	65.62
1902 . . . . .	6,16,99,605	45,46,551	16,19,128	2.62	24,46,187	-8,27,059	177	64.39
1903 . . . . .	6,33,83,510	51,18,656	15,53,337	2.45	24,82,162	-9,28,825	178	65.62

7 (d) Nilgiri State railway (3' 3½" gauge).

The old Nilgiri Railway Company was registered on the 30th September 1885 with a nominal capital of Rs. 25,00,000 and a contract executed between the Secretary of State and that Company on the 26th February 1886. The old Company went into liquidation in April 1894; and in February 1896 a new Company was formed to purchase the line from the old Company and to supply the capital required to complete it and to construct the proposed extension to Ootacamund. The line from Mettupalaiyam to Coonoor was completed by the new Company and opened for traffic on the 15th June 1899. On the offer of the new Company to sell the line it was purchased by Government for £235,000 on the 1st January 1903.

\* The figures prior to 1901 represent the transactions of the whole of the late East Coast State railway.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 188.]

Number <sup>Main head 7</sup> Sub-heads (a) to (i) **MADRAS RAILWAY SYSTEM—*contd.***7 (d) Nilgiri State railway (3' 3½" gauge)—*concl'd.*

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Mettupalaiyam to Coonoor . . . . .	Probably in 1892.	15-6-99	16-99	...	1899	17
Total open mileage . . . . .	...	...	...	16-99	1900	17
					1901	17
					1902	17
					1903	17
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>						
Coonoor to Ootacamund . . . . .	6-11-03	...	11-50	11-50		
<b>GRAND TOTAL</b> . . . . .	...	...	...	28-49		

## Details of construction—

*Permanent-way.*—The permanent-way consists of steel rails, 50 lb. to the yard, laid on pyinkado sleepers.*Ballast.*—The line is ballasted with stone and sand, chiefly the former.*Fencing.*—The line is fenced throughout.*Curves.*—The curves vary from 318 feet to 716 feet in radius.*Gradient.*—The ruling gradient is 1 in 12-5.

## Terms of contract—

The railway is worked by the Madras Railway Company under the following terms (approved in Government of India letter No. 563 R. T., dated the 27th June 1903).

*Government aid.*—The line is the property of the State.*Currency of agreement—*  
*Power to determine agreement—* } The agreement may be terminated at any time on six months' notice from either party.*Terms of working.*—The Nilgiri State railway to pay actual outlay on Engineering maintenance and for fuel, and repairs and renewals of engines and carriage and wagon stock. For all other expenses of working, the Madras railway to receive 25 per cent. of gross earnings plus 10 per cent. of the net receipts.*Rates and fares.*—Certain maxima have been fixed within which the Company are permitted to vary rates.

## Statistics of working—

Calendar year.	TABLE I.									TABLE II.	
	Capital expenditure to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Subsidy from Government.	Total income.	Percentage of total income on capital outlay.	Interest.	Gain or loss to the State.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	
1890 . . . . .	67,850	...	...	...	...	...	...	...	...	...	...
1891 . . . . .	2,89,134	...	...	...	...	...	...	...	...	...	...
1892 . . . . .	8,89,751	...	...	...	...	...	...	...	...	...	...
1893 . . . . .	15,50,000	...	...	...	...	...	...	...	...	...	...
1894 . . . . .	18,50,000	...	...	...	...	...	...	...	...	...	...
1895 . . . . .	22,60,000	...	...	...	...	...	...	...	...	...	...
1896 . . . . .	18,92,610	...	...	...	...	...	...	...	...	...	...
1897 . . . . .	36,84,977	...	...	...	...	...	...	...	...	...	...
1898 . . . . .	44,54,085	...	...	...	...	...	...	...	...	...	...
1899 . . . . .	47,89,944	84,448	20,209	0-42	24,392	44,600	0-93	...	...	175	78-06
1900 . . . . .	48,96,490	1,76,082	86,642	1-77	23,006	1,19,648	2-44	...	...	200	42-83
1901 . . . . .	48,74,254	2,41,386	1,37,863	2-83	...	1,37,883	2-83	...	...	275	42-87
1902 . . . . .	49,08,431	8,09,068	1,12,111	2-28	...	1,12,111	2-28	...	...	852	63-73
1903* . . . . .	85,24,265	2,74,905	78,988	2-10	...	...	...	1,65,497	-91,509	811	78-09

\* Purchased by the State with effect from the 1st January 1903.



Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.  
[For Index see page 166.]

Number <sup>Main-head 7</sup> <sub>Sub-heads (a) to (i)</sub> MADRAS RAILWAY SYSTEM—contd.

7 (e) Shoranur-Cochin railway (3' 3½" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Shoranur to Ernakulam . . . . .	28-4-99	2-6-02	64.75	64.75

Details of construction—

*Permanent-way.*—The permanent-way consists of 41½ lb. flat footed steel rails on wooden sleepers.

*Ballast.*—The line is ballasted throughout with stone and sand, chiefly the former.

*Fencing.*—The line is fenced in the vicinity of towns, stations and level crossings.

*Curves.*—The sharpest curve is 818.57 feet in radius.

*Gradients.*—The ruling gradient is 1 in 80.

Terms of contract—

The Shoranur-Cochin railway is worked under the following agreement:—

*Agreement of*—1st January 1901 (between His Highness the Rajah of Cochin and the Madras Railway Company) for construction and working.

The general conditions of the agreement are as follows:—

*Government aid.*—The line is the property of the Cochin State.

*Currency of agreement.*—This agreement is to remain in force until the termination of the present agreement, dated the 2nd January 1871, between the Secretary of State and the Madras Railway Company.

*Terms of working.*—The Company charge for working the same proportion of the total revenue expenditure as the gross earnings of the Shoranur-Cochin railway bear to the gross earnings of the Madras railway system including the Shoranur-Cochin railway. After providing from the net earnings, for the second contribution to the Madras railway Provident Institution and for interest at the rate of 3 per cent. per annum on the booked capital expenditure of the Shoranur-Cochin railway including land, the balance is divisible between the Cochin Darbar and the Madras Railway Company in the proportion of four-fifths to the Darbar and one-fifth to the Company.

*Rates and fares.*—The same as are generally applicable from time to time to the system of railways worked by the Company.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings
	Rs.	Rs.	Rs.		Rs.	
1898 . . . . .	53,921	...	...	...	...	...
1899 . . . . .	80,927	...	...	...	...	...
1900 . . . . .	28,47,394	...	...	...	...	...
1901 . . . . .	50,82,280	...	...	...	...	...
1902 . . . . .	63,66,301	1,34,945	73,299	1.15	69	45.64
1903 . . . . .	64,41,390	3,52,964	1,98,023	3.07	105	43.90

7 (f) Azhikal-Mangalore railway (5' 6" gauge).

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Azhikal to Mangalore . . . . .	28-6-01	1-1-07*	77.27	77.27

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main-head 7</sup> <sub>Sub-heads (a) to (i).</sub> MADRAS RAILWAY SYSTEM—concl'd.7 (g) Salem-Attur railway (5' 6" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
Salem to Attur . . . . .	16-9-03	†	Miles. 36'06	Miles. 36'06

7 (h) Morappur-Dharmapuri railway (2' 6" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
Morappur to Dharmapuri . . . . .	24-10-02	1-1-05*	Miles. 18'36	Miles. 18'36

7 (i) Tirupattur-Krishnagiri railway (2' 6" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
Tirupattur to Krishnagiri . . . . .	24-10-02	1-1-05*	Miles. 25'43	Miles. 25'43

Number <sup>Main head 8</sup> <sub>Sub-heads (a) to (c).</sub> NIZAM'S GUARANTEED STATE RAILWAY SYSTEM—

Lines comprising system.—The Nizam's Guaranteed State railway system is made up of—

(a) Nizam's Guaranteed State railway (5' 6" gauge) . . . . .	Open line. Miles. 330'18
(b) Bezwada Extension railway (5' 6" gauge) . . . . .	20'58
(c) Hyderabad-Godavari Valley railway (3' 3½" gauge) . . . . .	391'42
TOTAL . . . . .	742'18

## Running powers—

Home line over Foreign line:—

Distant signal at Bezwada to Bezwada station, Madras (North-East line) . . . . . 0'89

Up to the end of 1878 the line was worked by the Great Indian Peninsula Railway Company with its own rolling-stock. From January 1879 to the 31st December 1884, it was worked by the State agency, and from January 1885, by His Highness the Nizam's Guaranteed State Railways Company. The section of the East Coast State railway, which extends from the frontier of His Highness the Nizam's dominions to the north distant signal of the Bezwada station, was worked by this Company as part of its own system up to December 1897, when it was transferred to the East Coast State railway. It was transferred back to the Company for working from the 1st January 1901.

8 (a) Nizam's Guaranteed State railway proper (5' 6" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<i>Main line—</i>			Miles.	Miles.		Miles.
Wadi junction to Secunderabad and to junction of new line.	25-3-71	9-10-74	115'45‡	310'09	1874 to 1885	121
Junction of new line to Warangal . . . . .	Nov. '84	8-4-86	87'47		1886	204
Warangal to Dornakal . . . . .	May '86	1-1-88	51'21		1887	205
Dornakal to Bona Kalu . . . . .	Jany. '87	5-8-88	31'72		1888	306
Bona Kalu to the British frontier . . . . .		10-2-89	23'54		1889	330
Total main line . . . . .	...	...	...		1890 to 1892	333
					1893 to 1897	332
					1898 to 1903	330
<i>Branches—</i>						
Hyderabad branch—						
Hussain Sagar to Hyderabad . . . . .	25-3-71	9-10-74	3'54	20'04		
Mineral branch—						
Dornakal to Singareni Coal-fields . . . . .	May '86	1-1-88	16'50			
Total branches . . . . .	...	...	...			
GRAND TOTAL . . . . .	...	...	...	330'18		

\* Probable date of opening.

† Commencement of work not yet authorised.

‡ Of this 5'82 miles, Secunderabad to Hyderabad, are of mixed (5' 6" and 3' 3½") gauge.

Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 5, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.  
[For Index see page 168.]

Number <sup>Main head 8</sup> <sub>Sub-heads (a) to (c)</sub> NIZAM'S GUARANTEED STATE RAILWAY SYSTEM—contd.  
8 (a) Nizam's Guaranteed State railway proper (5' 6" gauge)—concl'd.

Details of construction—

*Permanent-way.*—The first 47 miles from Wadi are laid with 75 lb. bull-headed steel rails on cast iron pot sleepers; and the following 9 miles with 68 lb. double-headed steel rails on pot sleepers. The remainder of the line is laid with 66½ lb. flat-footed steel rails on steel pea-pod sleepers with the exception of the mixed (5' 6" and 3' 3½") gauge line from Secunderaba to Hyderabad which has wooden sleepers under the same section of rail.

*Ballast.*—The line is ballasted throughout.

*Fencing.*—The line is fenced from Wadi to Secunderabad, but from Secunderabad to the frontier only the station yards are fenced.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 100.

Terms of contract—

The railway is worked under the following contract:—

*Contract of*—27th December 1883 (between the Nizam's Government and the Nizam's Guaranteed State Railways Company) for construction, maintenance and working.

The general conditions of the contract are as follows:—

*Terms of contract.*—The Nizam's Guaranteed State Railways Company was formed in 1883 for the purpose of acquiring and working the then existing railway and of constructing on the same gauge and working certain new lines, with a capital not exceeding £4,500,000 to be raised by the issue of shares and redeemable mortgage debentures (or as may be agreed upon) His Highness the Nizam's Government paying thereon for 20 years an annuity to be applied in payment of interest and towards a sinking fund for the redemption or reduction of capital. Land also was provided free of charge.

*Currency of contract.*—The contract is current for a period of 99 years, and on expiry by effluxion of time, the land, buildings and fixed works, etc., and all rolling-stock, stores, etc., at a fair valuation, revert to the Nizam's Government. The Nizam's Government has the option of purchasing the line on the 1st January 1914, 1934 or 1954, on twelve months' notice, by paying in sterling the capital unredeemed and a bonus of 25 per cent. thereon. In case of breach of contract by the Company, the Nizam's Government may give six months' notice and assume possession of the line, etc., by paying the amount of capital unredeemed, unless the default or breach is remedied within that period.

*Terms of working.*—From gross earnings are deducted working expenses, and during the guaranteed period the net earnings are applied in the first instance to repayment of the annuity, paid in the same half-year. Of the residue one moiety is utilised towards the repayment of previous payments of annuity, and sums owing to the Nizam's Government and the balance is paid to the Company. After the expiration of the annuity, a sum sufficient for payment of interest on the capital unredeemed will be retained by the Company, and of the balance, one-half will be paid to the Nizam's Government, the remaining moiety being made over to the Company.

*Rates and fares.*—The rates and fares not to be, unless otherwise agreed between His Highness' Government and the Company, in excess of the rates and fares which were in existence on the Great Indian Peninsula railway at the time the contract was made.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.*	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Earnings per mile per week.	Pro: of exp: to earnings.
	Rs.	Rs.	Rs.		Rs.	
1879	1,16,46,997	6,94,401	89,925	0.77		87.01
1880	1,21,90,870	7,02,716	2,48,604	2.04	110	68.08
1881	1,22,85,291	7,56,834	2,38,866	2.35	112	61.32
1882	1,22,27,794	8,59,418	3,75,099	3.07	120	56.35
1883	1,22,83,560	8,53,521	2,37,932	1.94	141	72.13
1884	1,23,08,720	9,72,917	4,70,327	3.82	137	63.02
1885	2,05,60,998	11,18,950	4,87,024	2.37	155	56.26
1886	2,71,49,342	13,81,077	6,94,524	2.56	178	49.71
1887	2,69,71,143	15,48,891	5,52,905	2.05	143	64.91
1888	3,55,11,354	17,76,075	7,57,467	2.13	143	57.35
1889	3,59,46,922	22,57,462	7,72,513	2.15	116	66.90
1890	3,77,11,194	25,07,268	10,30,590	2.76	129	59.74
1891	3,95,18,791	27,76,437	12,57,360	3.18	140	54.70
1892	3,95,48,395	27,80,642	13,24,959	3.35	151	52.35
1893	4,01,96,969	30,61,605	14,36,451	3.57	151	53.08
1894	4,02,33,826	32,58,885	16,22,028	4.03	186	50.20
1895	4,06,43,818	32,15,541	15,77,149	3.88	177	53.77
18'6	4,06,24,737	33,03,522	17,28,196	4.24	185	50.02
1897	4,09,60,944	36,10,354	19,38,789	4.73	187	48.67
1898	4,10,54,449	39,07,612	22,74,550	5.54	205	44.20
1899	4,15,68,731	41,10,201	25,01,046	6.02	221	43.45
1900	4,17,49,124	49,12,056	284,1,965	6.81	240	41.52
1901	4,24,30,543	40,77,927	26,43,120	6.24	286	35.59
1902	4,28,80,527	44,06,494	26,82,533	6.25	286	39.89
1903	4,30,13,663	48,13,630	25,38,386	5.90	254	41.79
					251	

\* Includes the Bezvada extension railway.

## APPENDIX 38—contd.

Appendix 38.  
History of railways.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

## History of railways constructed and in progress.

[For Index see page 162.]

Number <sup>Mainhead 8</sup> <sub>Sub-heads (a) to (c)</sub> NIZAM'S GUARANTEED STATE RAILWAY SYSTEM—contd.  
8 (b) Bezwada Extension railway (5' 6" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Hyderabad frontier to Bezwada . . . . .	26-11-86	10-2-89	20.58	20.58

## Details of construction—

*Permanent-way.*—The line is laid with 66½ lb. flat-footed steel rails on steel pea-pod sleepers.*Ballast.*—The line is ballasted throughout.*Fencing.*—The line is fenced only at stations.*Curves.*—There are no curves with a radius of less than 1,000 feet.*Gradients.*—The ruling gradient is 1 in 100.

## Terms of contract—

The revised agreement for working this railway is under consideration.

## Statistics of working—

Calendar year.	TABLE I.				TABLE II.			
	Capital outlay to end of each year	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Interest.	Gain or loss to the State.	Earnings per mile per week.	Pro : of exp : to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	
1887 . . . . .	8,11,654	...	...	...	16,363	-16,363		
1888 . . . . .	11,56,237	...	...	...	39,357	-39,357		
1889 . . . . .	13,46,302	76,671	16,326	1.21	53,530	-37,204		
1890 . . . . .	13,90,830	74,731	16,318	1.17	54,530	-38,212		
1891 . . . . .	14,11,077	87,367	23,699	2.03	56,266	-27,567		
1892 . . . . .	14,17,674	98,779	23,347	2.00	56,584	-28,237		
1893 . . . . .	14,21,456	1,08,386	33,972	2.39	56,898	-22,916		
1894 . . . . .	14,26,901	1,71,016	71,270	5.00	57,122	+14,148		
1895 . . . . .	14,31,642	95,119	95,119	6.64	57,239	+37,880		
1896 . . . . .	14,35,588	73,057	33,496	2.68	57,406	-18,910		
1897 . . . . .	14,35,418	1,66,800	56,645	3.79	58,383	-1,738		
1898 . . . . .	15,01,343	1,69,061	95,390	6.35	59,569	+35,821		
1899 . . . . .	15,02,651	3,12,172	1,84,365	12.27	60,101	+1,24,264		
1900 . . . . .	15,02,618	3,56,446	2,33,989	15.90	60,106	+1,78,883		
1901 . . . . .	11,51,678	2,77,177	1,56,929	13.63	35,509	+1,21,420		
1902 . . . . .	11,60,425	2,39,663	1,40,329	12.08	46,375	+93,954		
1903 . . . . .	11,77,947	3,25,363	1,67,332	14.22	46,617	+1,20,715		

Included with the Nizam's Guaranteed State railway proper.

8 (c) Hyderabad-Godavari Valley railway (3' 3½" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Manmad to Jalna . . . . .	12-1-97	21-10-99	109.36		1899	154
Jalna to Sailu . . . . .		7-12-99	44.74		1900	385
Sailu to Purbhani . . . . .		25-4-00	26.43		1901	391
Purbhani to Nanded . . . . .		9-10-00	36.29		1902	391
Nanded to Sivungaon . . . . .		23-8-00	16.68		1903	391
Sivungaon to Basar . . . . .		25-4-00	33.89			
Basar to Secunderabad . . . . .		25-4-00	118.21			
Secunderabad to Hyderabad . . . . .		16-5-01	5.82*			
TOTAL	...	...	...	391.42		

## Details of construction—

*Permanent-way.*—The permanent-way consists of 50 lb. flat-footed steel rails on steel and wooden sleepers.*Ballast.*—The line is ballasted throughout.*Fencing.*—The line is fenced only at stations.*Curves.*—There are no curves with a radius of less than 1,000 feet.*Gradients.*—The ruling gradient is 1 in 133.3.

## Terms of contract—

The railway is worked under the following agreement :—

*Agreement of*—16th March 1897 (between His Highness the Nizam's Government and the Nizam's Guaranteed State Railways Company) for construction and working.

\* Laid on a mixed (5' 6" and 3' 3½") gauge.

Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 168.]

Number Main-head 8 **NIZAM'S GUARANTEED STATE RAILWAY SYSTEM—*concl'd.***  
Sub-heads (a) to (c).

8. (c) Hyderabad-Godavari Valley railway (3' 3½" gauge)—*concl'd.*

Terms of contract—*concl'd.*

The general conditions of the contract are as follows :—

*Terms of contract.*—Capital to the extent of £2,500,000 to be raised by the issue of redeemable mortgage debentures, the Nizam's Government paying thereon an annuity, and, in addition a sum of one per cent. per annum for 20 years towards sinking fund for the redemption of such debentures which will be a first charge on the Hyderabad-Godavari Valley railway and a second charge on the Nizam's Guaranteed State railway, and after the expiration of the guaranteed period interest payable thereon a first charge on the net earnings of the former line and a second charge on the surplus net earnings of the latter line after the service of the existing debenture debt has been provided for. The free use of land is also provided for.

*Currency of contract.*—On expiry of the contract by effluxion of time, the land, buildings and fixed works, etc., and rolling-stock, stores, etc., at a fair valuation, revert to the Nizam's Government. The contract runs concurrently with that of the Nizam's Guaranteed State Railways Company, and the Nizam's Government has the option of purchasing the line on the 1st January 1914, on twelve months' notice, by paying in sterling the capital unredeemed and a bonus of 25 per cent. thereon, or on the 1st January 1934 or 1954 without bonus. In case of breach of contract by the Company, the Nizam's Government may give six months' notice and assume possession of the line, etc., by paying the amount of capital unredeemed, unless the default or breach is remedied within that period.

*Power of Company to surrender contract.*—Nil.

*Terms of working.*—From the gross earnings are deducted working expenses, and the net earnings are applied in the first instance towards replacing the amount paid as interest on capital during construction, and during the guaranteed period, to repayment of the annuity paid in same half-year, and not more than half the residue to repayment of previous payments of annuity, the remaining moiety being added to and dealt with as part of the net earnings of the Company in respect of the Nizam's Guaranteed State railway. After expiration of the annuity a sum sufficient for payment of interest on the capital unredeemed to be retained by the Company, and of the balance one-half to be paid to the Nizam's Government, the remaining moiety being dealt with as above.

*Rates and fares.*—Rates and fares not to be in excess of those prevailing on the Nizam's Guaranteed State railway.

Statistics of working—

TABLE I.					TABLE II.		
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Pro: of exp: to earning	
	Rs.	Rs.	Rs.		Rs.		
1896	8,74,350	...	...	...	...	...	
1897	17,61,352	...	...	...	...	...	
1898	86,55,416	...	...	...	...	...	
1899	2,00,21,971	63,331	36,877	0.18	48	41.8	
1900	2,31,94,817	10,63,023	4,20,826	1.81	70	60.4	
1901	2,44,37,419	20,10,933	9,23,300	3.77	99	54.0	
1902	2,57,75,220	22,88,043	9,67,892	3.76	112	57.7	
1903	2,62,07,241	22,14,752	8,86,291	3.38	109	59.9	

Number Main head 9 **NORTH WESTERN STATE RAILWAY SYSTEM—**  
Sub-heads (a) to (j).

Lines comprising system.—The North Western State railway system is made up of—

	Open line.	Under construction.	Total.
	Miles.	Miles.	Miles.
(a) North Western State railway (5' 6" gauge)	3,128.76	247.50	3,371.26
(b) Jammu and Kashmir (Native state section), (5' 6" gauge)	15.92	...	15.92
(c) Ludhiana-Dhuri Jakhhal railway (5' 6" gauge)	78.66	...	78.66
(d) Rajpura-Bhatinda railway (5' 6" gauge)	107.05	...	107.05
(e) Southern Punjab railway (5' 6" gauge)	425.33	156.40	581.73
(f) Khushalgarh-Kohat-Thal railway (2' 6" gauge)	91.73	...	91.73
(g) Nowshera-Duggai railway (2' 6" gauge)	40.25	...	40.25
(h) Dandot Light railway (2' 0" gauge)	6.18	...	6.18
(i) Jullundur-Kapurthalla-Sultanpur (British section)*	...	6.80	6.80
(j) Jullundur-Kapurthalla-Sultanpur (Native state section)*	...	22.02	22.02
<b>Total</b>	<b>3,885.88</b>	<b>432.72</b>	<b>4,321.60</b>

Running powers—

Home line over foreign line :—

East Indian railway, Ghaziabad to Delhi.

Miles.

18.00

The first period of the contract with the Sind, Punjab and Delhi Railway Company having expired, the State assumed charge of the Undertaking on the 1st January 1886 and amalgamated it with the Punjab Northern, the Ludus Valley, the Sind-Sagar, and the southern section of the Sind-Pishin State railways to be worked as one Imperial system under the name of the North Western State railway. The completion and opening, on the 24th May 1884 of the Attock bridge supplied the last link in a continuous chain of railway communication from Calcutta to Peshawar a distance of 1,555 miles.

\* Question of gauge not yet finally settled.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number Main-head 9 Sub-heads (a) to (j) NORTH WESTERN STATE RAILWAY SYSTEM—contd.

The Wazirabad-Lyallpur branch was constructed to open up the country now being irrigated by the Chenab canal, and recently brought under cultivation by the colonists and settlers, who are reclaiming the desert land of the Rechna Doab.

The Kotri-Rohri chord was constructed owing to the set of the Indus on the right bank which rendered the line along that bank dangerous, and, owing to the frequent breaches, caused communication with Karachi to be intermittent, dislocating the export trade and cutting off communication with the North Western Frontier. The present line, which follows the left bank of the river, is on high ground and is less liable to inundation. It saves about 36·51 miles on the through distance from the Punjab to Karachi, and also gives an alternative route to Quetta.

The line from the Bolan Junction station and from the Sibi station follows the old Quetta loop to Nari Bank station 481 miles from Sibi and 453 miles from Karachi. The old Bolan railway (Quetta loop) from Nari Bank *via* Kundalani to Hirok has been dismantled, except the first portion from Nari bank to Rindli. The new line is on a completely new alignment between Nari bank and Kolpur, the actual length of the construction works being 57 miles.

## (a) North Western State railway proper (5' 6" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.		
					Calendar year.	Mileage open.	
<b>COMMERCIAL SECTION—</b>							
<i>Main line—</i>							
Ghaziabad to Meerut City . . . . .	1864	18-4-67	27·33		1861	110	
Meerut City to Umballa Cantonment . . . . .		1-1-69	121·02		1862	142	
Umballa Cantonment to Ludhiana . . . . .		12-10-69	70·66		1863	142	
Ludhiana to Phillour . . . . .		15-10-70	8·23		1864	142	
Phillour to Jullundur Cantonment . . . . .		1-4-70	24·12		1865	350	
Jullundur Cantonment to Beas . . . . .		15-11-69	25·53		1866	350	
Beas to Amritsar . . . . .		1-11-67	26·20		1867	403	
Amritsar to Lahore . . . . .		8-2-59	10-4-62	32·30		1868	403
Lahore to Jhelum . . . . .		22-10-69	6-10-78	103·12		1869	621
Jhelum to Rawalpindi . . . . .		17-9-77	...	76·38		1870	663
Rawalpindi to Haji Shah . . . . .	3-10-73	1-1-81	61·62		1871	663	
Haji Shah to Attock bridge . . . . .		1-5-81		1872	663		
Attock bridge to Khairabad . . . . .	8-1-71	31-5-83	2·38		1873	663	
Khairabad to Peshawar City . . . . .		1-5-82	41·25		1874	663	
Peshawar City to Peshawar Cantonment . . . . .	8-2-59	1-1-83	2·65		1875	725	
Lahore to Mooltan Cantonment . . . . .		24-4-65	207·82		1876	767	
Mooltan Cantonment to Muzaffarabad . . . . .	8-1-71	21-8-70	6·89		1877	767	
Muzaffarabad to Khanpur . . . . .		1-7-78	139·14		1878	1,268	
Khanpur to Rohri . . . . .	4-11-72	1-7-78	132·05		1879	1,268	
Rohri to Sukkur . . . . .		27-9-89	2·64		1880	1,541	
Sukkur to Badhan . . . . .	29-4-58	1-10-78	79·31		1881	1,671	
Badhan to Laki . . . . .		27-10-78	70·57		1882	1,732	
Laki to Kotri . . . . .	...	8-10-78	75·48		1883	1,759	
Kotri to Karachi City . . . . .		13-5-61	104·89		1884	1,850	
Karachi City to Kiamari (including Napier Mole line).	...	16-6-89	3·07		1885	1,857	
Total Main line, Commercial section, carried over.			...	1,444·70			

Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7, and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 188.]

Number Main head 9 NORTH WESTERN STATE RAILWAY SYSTEM—contd.  
Sub-heads (a) to (g)  
9 (a) North Western State railway proper (5' 6" gauge)—contd.  
Progress in opening—contd.

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
Brought forward, total main line, Commercial section	...	...	Miles. ...	Miles. 1,444.70	1886	Miles. 1,857
<b>COMMERCIAL SECTION—contd.</b>					1887	2,398
<i>Branches—</i>					1888	2,432
<i>Sialkot Branch—</i>					1889	2,431
Wazirabad to Sialkot	10-4-83	1-1-84	26.50		1890	2,442
<i>Wazirabad-Lyallpur Branch—</i>					1891	2,356
Wazirabad to Hafizabad	...	15-8-95	37.37		1892	2,427
Hafizabad to Sangla Hill	...	1-1-96	31.45		1893	2,437
Sangla Hill to Lyallpur	...	15-2-96	27.21		1894	2,429
Lyallpur to Toba Tek Singh	...	22-6-99	49.00		1895	2,471
Toba Tek Singh to Khanewal	...	16-4-00	55.53		1896	2,708
			200.56		1897	2,811
<i>Kashmir Branch—</i>					1898	2,812
Sialkot to the frontier of the Kashmir State	...	15-3-90	9.08		1899	2,923
<i>Puranadera branch—</i>					1900	3,000
Phulji to Puranadera	...	1-6-82	2.57		1901	3,071
Phulji branch extension	...	31-3-02	0.34		1902	3,078
			2.91		1903	3,124
<i>Sukkur Bandar branch—</i>						
Sukkur to Sukkur Bandar	...	1-10-78	1.25			
<i>Kotri Bandar branch—</i>						
Kotri to Kotri Bandar	...	1-4-89	1.14			
<i>Meean Meer chord branch—</i>						
Meean Meer East to Meean Meer West	...	10-12-91	2.13			
<i>Kotri-Bohri (chord) branch—</i>						
Kotri to Hyderabad	...	25-5-00	4.89			
Hyderabad to Rahoki	...	28-3-01	6.04			
Rahoki to Shahdadpur	...	15-11-96	39.09			
Shahdadpur to Bohri	...	15-11-96	139.84			
			189.96			
<i>Ferozepore branch—</i>						
Raewind to Kasur	...	15-4-83	16.50			
Kasur to Ganda Singhwala	9-11-82	10-6-83	7.00			
Ganda Singhwala to Ganda Singh Bandar	2-10-83	15-12-83	5.50			
Ganda Singh Bandar to Hussainiwala	...	8-5-87	2.00			
Hussainiwala to Ferozepore City	...	1-10-92	2.00			
Ferozepore City to Ferozepore Cantonment	29-10-81	1-10-88	2.00			
Ferozepore Cantonment to Bhatinda	...	15-6-99	154.36			
Hussainiwala to Ferozepore Cantonment	...	8-5-87	93.50			
			90.86			
<i>Pathankot branch—</i>						
Amritsar to Dinanagar	...	1-1-84	51.23			
Dinanagar to Pathankot	6-12-81	8-6-84	15.48			
			66.70			
<i>Jech Doab section—</i>						
Malakwal to Sargodha	26-11-01	1-4-03	46.25			
<b>Total Branches</b>	...	...	...	697.34		
<b>TOTAL OPEN MILEAGE (COMMERCIAL SECTION), CARRIED OVER</b>	...	...	...	2,082.04		

\* This is a military line and is not intended to be used for ordinary public traffic.  
† Includes 28.28 miles of mixed gauge between Kot Kapura and Bhatinda.  
‡ The decrease is due to the exclusion of the old Quetta loop, 90½ miles, which was under reconstruction.



## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head (9)</sup> <sub>Sub-heads (a) to (j)</sub> **NORTH WESTERN STATE RAILWAY SYSTEM—contd.**  
**g (a) North Western State railway proper (5' 6" gauge)—contd.**  
**Progress in opening—contd.**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	
			Miles.	Miles.	
Brought forward, total open mileage, Commercial section	...	...	...	2,082.04	
<b>FRONTIER SECTION (MILITARY)—</b>					
<i>Main line—</i>					
<i>Sind-Sagar—</i>					
Lala Musa to Baha-ud-din	24-7-77	*1-1-80	28.48		
Baha-ud-din to Hariah		*1-2-80	10.52		
Hariah to Malakwal		*10-4-80	5.99		
Malakwal to Bhakkar		...	15-8-87		175.04
Bhakkar to Chenab west bank		...	22-1-87		119.71
Chenab west bank to Chenab east bank		...	1-2-90		2.49
Chenab east bank to Sher Shah	...	1-1-89	2.39		
<b>Total Main line</b>	...	...	...	<b>344.60</b>	
<i>Branches—</i>					
<i>Khushalgarh branch—</i>					
Golra Junction to Langar	Sep 1879	1-4-81	60.50		
Langar to Khushalgarh		16-4-81	9.66		
Khushalgarh, new station		18-7-83	70.16		
<i>Bhera branch—</i>					
Malakwal to Miani	24-7-77	*10-4-80	8.99		
Miani to Bhera	25-10-81	*2-2-82	9.11		
			18.10		
<i>Bhaganwala branch—</i>					
Haranpur to Bhaganwala	...	...	10.84		
<i>Khewra branch—</i>					
Chalisa Junction to Khewra salt mines	...	*1-1-83	6.36		
Khewra to Dandot	...		2.15		
			8.51		
<i>Mari branch—</i>					
Kundian to Mari	Kundian to Mianwali, 27-2-86	15-3-92	36.32		
<i>Dera Ghazi Khan branch—</i>					
Mahmud Kot to Ghasighat	...	1-4-87	11.27		
<i>Mari-Attock branch—</i>					
Cambellpore Cantonment (new station) to Basal Junction.	...	1-4-99	18.45		
Jand Junction to Dand Khel	...	1-4-99	53.91		
			72.36		
<b>Total Branches</b>	...	...	...	<b>227.56</b>	
<b>TOTAL OPEN MILEAGE, SIND-SAGAR, MILITARY SECTION</b>	...	...	...	<b>572.16</b>	
<i>Sind-Pishin—</i>					
Rak to Sibi	Oct. 1879	2-5-80	132.26		
Sibi to Sharigh	...	20-3-87	74.80		
Sharigh to Bostan	...	28-8-87	61.13		
Base of Bostan triangle loop	...	...	0.31		
Bostan to Killa Abdulla.	...	25-1-88	38.14		
Killa Abdulla to Chaman	...	1-1-92	29.40		
<b>TOTAL, SIND-PISHIN</b>	...	...	...	<b>336.04</b>	
Carried over, total open mileage				<b>908.20</b>	
				<b>2,082.04</b>	

\* Dates of opening of original 3' 3 3/4" gauge line, subsequently converted to and opened on the 5' 6" gauge line as follows: Lala Musa to Malakwal 10-2-80; Malakwal to Bhera, 15-3-87; Chalisa Junction to Khewra salt mines, 15-3-87; Khewra to Dandot, 1-8-89.

Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168]

Number <sup>Main-head 9</sup> <sub>Sub-heads (a) to (f)</sub> NORTH WESTERN STATE RAILWAY SYSTEM—*contd.*

9 (a) North Western State railway proper (5' 6" gauge)—*contd.*

Progress in opening—*contd.*

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
Brought forward, total open mileage			Miles.	Miles.
{ Commercial section	...	...	...	2,082.04
{ Frontier section (Military) (Sind-Sagar and Sind-Pishin)	...	...	...	908.20
<b>FRONTIER SECTION (MILITARY)—<i>contd.</i></b>				
<i>Mushkaf-Bolan—</i>				
Sibi (Point No. 51) to Quetta south distant signal	...	15-4-97	86.74	
<i>Quetta loop—</i>				
Quetta south distant signal to Bostan	...	28-8-87	20.59	
Nari bank to Rindli	...	1-1-98	13.81	
Mithri chord	...	...	1.34	
			35.74	
<b>TOTAL, MUSHKAF-BOLAN</b>	...	...	...	122.48
<i>Peshawar-Jamrud branch—</i>				
Peshawar to Jamrud	...	1-1-01	11.04	11.04
<b>TOTAL OPEN MILEAGE, FRONTIER SECTION (MILITARY)</b>	...	...	...	1,041.72
<b>GRAND TOTAL, NORTH WESTERN (COMMERCIAL AND MILITARY)</b>	...	...	...	3,123.76
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>				
<i>Jech-Doab section—</i>				
Sargodha to Shorkot Road	23-9-03	...	103.00	
<i>Quetta-Nushki section—</i>				
From a point 12 miles south of Quetta to Nushki	6-8-02	..	82.50	
<i>Hyderabad-Badin section—</i>				
Hyderabad to Badin	15-5-03	...	62.00	
<b>TOTAL MILES UNDER CONSTRUCTION</b>	...	...	...	247.50
<b>GRAND TOTAL, NORTH WESTERN STATE RAILWAY PROPER</b>	...	...	...	3,371.26
<b>DOUBLE LINE (COMMERCIAL AND MILITARY SECTIONS)—</b>				
Kiamari to Karachi City	...	30-6-97	3.06	
Karachi City to Karachi Cantonment	...	13-5-61	2.30	
Karachi Cantonment to Pipri	...	20-6-97	20.75	
Pipri to Kotri	...	3-5-98	81.89	
Meean Meer East to Meean Meer West	...	10-12-91	* 2.13	
Gulistan to Chaman	...	...	36.82	
Ab-i-Gum to Kolpur	...	20-9-92	23.54	
<b>TOTAL DOUBLE LINE</b>	...	...	...	170.49

Details of construction—

*Permanent-way.*—The permanent-way is of various types. On the single line, of iron rails, there are 105.33 miles, 60 lb. flat-footed; 71.45 miles, 68 lb. double-headed; 29.40 miles, 60 lb. bull-headed; 10.65 miles, 82 lb. double-headed and 3.50 miles, 68 lb. bull-headed. Of steel rails, there are 46.25 miles, 61½ lb. flat-footed; 3.36 miles, 70 lb. flat-footed; 389.39 miles, 62 lb. flat-footed; 1883.40 miles, 75 lb. flat-footed; 8.25 miles, 64 lb. double-headed, 80.55 miles, 68 lb. double-headed; 92.76 miles, 75 lb. double-headed; 182.57 miles, 68 lb. bull-headed; 42.94 miles, 84 lb. bull-headed; 23.55 miles, 100 lb. flat-footed; 44.12 miles, 77½ lb. bull-headed and 108.89 miles, 73 lb. bull-headed. On the double line, of iron rails, there are 2.13 miles, 68 lb. double-headed. Of steel rails there are 0.50 mile, 68 lb. double-headed; 141.88 miles, 75 lb. flat-footed; 3.15 miles, 77½ lb. bull-headed and 23.54 miles 100 lb. flat-footed. The sleepers used are chiefly of wood, but cast-iron (oval or round) pots and steel transverse sleepers are also extensively used.

*Ballast.*—The line is ballasted throughout with sand and broken stone.

*Tunnels.*—See Appendix 37.

*Bridges.*—See Appendix 36.

*Fencing.*—The main line, Ferozepore and Pathankot branches, are fenced on both sides with the exception of the section from Lala Musa to Peshawar which is only partially fenced. The Wazirabad and Khushalgarh branches are unfenced, except at stations. The Sind-Sagar railway is unfenced, except on the portion from Sher Shah to Chenab west bank. The Kundian-Mianwali branch is unfenced throughout. The Sind-Pishin main line is fenced from Ruk Junction to Jhatpat; the remainder of the line is unfenced. The Mushkaf-Bolan line, the Chaman extension and the Jech-Doab section, from Malakwal to Sargodha, are unfenced.

*Curves.*—There are several curves with a radius of less than 1,000 feet, on the hill sections their radii varying from 477 feet to 955 feet.

*Gradients.*—The ruling gradient between Kotri and Rohri, Sibi and Ruk and Raewind and Bhatinda, is 1 in 500; between Ghaziabad and Lala Musa, Kotri and Lahore, Lyallpur and Khanewal and Malakwal and Sargodha, 1 in 400; between Karachi and Kotri, 1 in 189; between Lala Musa and Peshawar, 1 in 100; between Peshawar and Jamrud, 1 in 90; between Golra and Jand, 1 in 70 and between Jand and Khushalgarh, 1 in 50. The gradients on the Sind-Sagar, Mari-Attock, Sind-Pishin and Mushkaf-Bolan lines are, 1 in 400, 1 in 80, 1 in 40 and 1 in 25, respectively.

Terms of contracts—

The line is owned and worked by the State.

\*This is a Military line and is not intended to be used for ordinary public traffic.



Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number Main-head 9. NORTH WESTERN STATE RAILWAY SYSTEM—*contd.*  
Sub-heads (a) to (j)

## 9 (b) Jammu and Kashmir (Native state section) (5' 6" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total
			Miles.	Miles.
Frontier of the Kashmir state to the left bank of the Tawi river near Jammu . . . . .	25-2-88	15-3-90	1592	1592

## Details of construction—

*Permanent-way.*—The permanent-way consists of 75 lb. flat-footed steel rails laid on transverse sleepers of creosot pine and deodar.

*Ballast.*—The line is ballasted throughout with sand and broken stone.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 500.

## Terms of contracts—

The railway is worked by the State under the following contracts :—

*Contract of*—14th July 1888 (between the Government of India and the Kashmir Darbar) for construction and working.

15th November 1890.—Supplementary agreement (between the Government of India and the Kashmir Darbar) relative to the provision of capital.

23rd April 1898.—Memorandum of revised terms (between the Government of India and the Kashmir Darbar) for working.

The general conditions of the contracts are as follows :—

*Government aid.*—The line was constructed at the cost of the Kashmir Darbar.

*Currency of contract.*—Either party can revise the contract on giving six months' notice.

*Terms of working.*—The North Western State railway work and maintain the line, and supply rolling-stock for 55-50 per cent. of the gross earnings (which include any single item of capital expenditure classed as a 'Misc Work' subject to a maximum charge on such account of Rs. 30 per mile of line open in each half-year.) The balance is paid to the Kashmir Darbar.

*Rates and fares.*—Rates and fares are those which are from time to time in force on the main line of the North Western State railway.

## Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross receipts.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings
	Rs.	Rs.	Rs.		Rs.	
1888 . . . . .	29,545	...	...	...	...	...
1889 . . . . .	7,51,458	...	...	...	...	...
1890 . . . . .	12,37,071	45,607	18,770	1-11	†	†
1891 . . . . .	13,80,083	57,312	15,904	1-15	†	†
1892 . . . . .	9,45,302	54,005	15,444	1-63	†	†
1893 . . . . .	9,56,327	14,892	14,892	1-50	†	†
1894 . . . . .	9,59,773	17,556	17,556	1-83	†	†
1895 . . . . .	9,60,010	16,262	16,262	1-90	†	†
1896 . . . . .	9,60,011	31,321	31,321	3-26	†	†
1897 . . . . .	9,65,151	35,781	21,587	2-24	†	†
1898 . . . . .	9,62,846	48,164	21,433	2-23	68	55
1899 . . . . .	9,60,820	51,532	22,932	2-39	62	
1900 . . . . .	9,60,492	55,215	24,571	2-56	67	
1901 . . . . .	9,60,636	52,484	23,355	2-43	63	
1902 . . . . .	9,62,471	51,865	23,080	2-40	63	
1903 . . . . .	9,62,284	54,881	24,422	2-54	66	

† Included with the North Western State railway.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 163.]

Number <sup>Main head 9</sup> Sub-heads (a) to (j) NORTH WESTERN STATE RAILWAY SYSTEM—contd.9.(c) Ludhiana-Dhuri-Jakhal railway (5' 6" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Ludhiana <i>via</i> Dhuri to Jakhal . . . . .	6-10-99	10-4-01	78.66	78.66

## Details of construction—

*Permanent-way.*—The permanent-way consists of 75lb. flat-footed steel rails laid on transverse sleepers of creosoted pine and deodar.

*Ballast.*—The line is ballasted throughout with sand and broken stone.

*Fencing.*—The line is fenced throughout.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 400.

## Terms of contract—

The railway is worked under the contract of 6th September 1899 (between the Secretary of State and the Maler Kotla and Jind Darbars) for construction and working.

The general conditions of the contract are as follows:—

*Government aid.*—The line was constructed at the cost of the Maler Kotla and Jind Darbars.

*Currency of contract.*—The contract is terminable on the 31st December 1904, or on the 1st January or 1st July in any year thereafter, on six months' notice by either party. On breach of any of the provisions of the contract, if not remedied within six months of notice, the Secretary of State may determine the contract. Upon the determination of the contract the North Western State railway will give to the Maler Kotla and Jind Darbars possession of the railway, works, surveys and stores, and, on this being done, the Maler Kotla and Jind Darbars will indemnify the North Western State railway of all debts and liabilities incurred for the Ludhiana-Dhuri-Jakhal railway then subsisting. The working stores provided by the North Western State railway may, if desired by that railway, be taken over at a valuation to be mutually agreed to.

*Terms of working.*—After deduction of 55 per cent. of the gross receipts for working expenses, the balance to be paid to the Maler Kotla and Jind Darbars to be divided between them in the proportion of  $\frac{1}{3}$ th and  $\frac{2}{3}$ ths, respectively.

*Rates and fares.*—Rates and fares as in force on the North Western State railway.

## Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Pro: of exp: to earnings.
	Rs.	Rs.	Rs.		Rs.	
1901 . . . . .	43,10,407	2,02,297	91,034	2.11	68	55.00
1902 . . . . .	43,24,799	4,05,005	1,82,252	4.21	99	55.00
1903 . . . . .	*41,19,964	3,15,026	1,41,762	3.44	101	55.00

9. (d) Rajpura-Bhatinda railway (5' 6" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
						Miles.
Rajpura to Patiala . . . . .	7-12-83	1-11-84	15.77	107.05	1884 to 1888	16
Patiala to Bhatinda . . . . .	April 1888	13-10-89	91.28			
TOTAL . . . . .	...	...	...		1889 to 1903	107

## Details of construction—

*Permanent-way.*—The line from Rajpura to Patiala is laid with 68lb. steel rails on deodar sleepers and from Patiala to Bhatinda with 75lb. flat-footed steel rails on creosoted-pine and deodar sleepers.

*Ballast.*—The line is ballasted throughout with sand and broken stone.

*Fencing.*—The line is fenced from Rajpura to Patiala only.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 500.

\* The decrease was due to credits.

Appendix 38.  
History of railways.

## APPENDIX 38—contd.

[Appendices 4 (portion) 6, 7, and 47 in Report for 1903.]

## History of railways constructed and in progress.

[For Index see page 163.]

Number <sup>Main head 9</sup> <sub>Sub-heads (a) to (j)</sub> NORTH WESTERN STATE RAILWAY SYSTEM—contd.

## 9 (d) Rajpura-Bhatinda railway (5' 6" gauge)—contd.

## Terms of contract—

The railway is owned by the Patiala State and is worked by the North Western State railway under the following contract—

Contract of—30th January 1893 (between the Secretary of State and the Patiala Darbar) for maintenance and working.

The general conditions of the contract are as follows:—

Government aid.—The line has been constructed at the cost of the Patiala Darbar.

Currency of contract.—The contract is terminable on the 1st January or 1st July in any year, on six months' notice by either party. On breach of any of the provisions of the contract, if not remedied within six months of notice, the Secretary of State may determine the contract. Upon the determination of the contract, the North Western State railway will give to the Patiala Darbar possession of the railway, works, surveys and stores, and, on this being done, the Patiala Darbar will indemnify the North Western State railway of all debts and liabilities incurred for the Rajpura-Bhatinda railway then subsisting. The working stores provided by the North Western State railway may, if desired by that railway, be taken over at a valuation to be mutually agreed to.

Terms of working.—After deduction of 55 per cent. of the gross receipts of the Rajpura-Bhatinda railway for working expenses, the balance to be paid over to the Patiala Darbar.

Rates and fares.—Rates and fares as in force on the North Western State railway.

## Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Pro. of exp. to earnings.
	Rs.	Rs.	Rs.		Rs.	
1884	11,12,959	5,111	—496	—	17	109.72
1885	12,29,141	48,769	—4,255	—	59	108.09
1886	12,28,141	64,623	13,816	1.12	79	79.62
1887	12,43,250	*	15,425	1.24	†	†
1888	22,61,990	*	18,640	0.82	†	†
1889	62,83,818	1,09,480	58,403	0.93	74	55.00
1890	64,00,584	5,66,946	2,55,126	3.99	101	55.00
1891	65,81,552	7,19,859	3,23,937	4.92	129	55.00
1892	66,41,362	5,64,053	2,53,824	3.82	100	55.00
1893	67,26,941	6,84,337	3,07,956	4.58	122	55.00
1894	67,01,669	12,59,032	5,66,565	8.45	224	55.00
1895	67,02,457	13,18,902	5,93,506	8.86	235	55.00
1896	66,95,813	9,97,826	4,49,022	6.71	178	55.00
1897	66,96,451	6,96,927	3,13,617	4.68	124	55.00
1898	67,04,520	7,20,637	3,16,187	4.72	125	55.00
1899	67,03,785	6,79,520	3,05,784	4.56	122	55.00
1900	67,03,785	6,93,804	3,12,211	4.66	125	55.00
1901	67,10,323	8,60,642	3,67,289	5.77	155	55.00
1902	67,12,977	8,40,947	3,78,426	5.64	151	55.00
1903	67,18,890	9,64,002	4,33,801	6.46	178	55.00

## 9 (e) Southern Punjab railway (5' 6" gauge)—

The railway runs from Delhi *via* Bhatinda to Samasata on the North Western State railway, shortening the distance by railway between Delhi and Karachi by 187 miles, as compared with the route *via* Umballa and Lahore.

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<b>Main line—</b>						
Delhi <i>via</i> Bhatinda to Samasata	—	10-11-97	Miles. 401.15	Miles.	1897	400
Independent entrance from Delhi Brewery to Delhi	—	20-12-09	0.78		1898	400
					1899	424
					1900	424
<b>Branch—</b>					1901	424
Narwana to Kaithal	—	1-2-00	23.38		1902	425
					1903	425
<b>TOTAL</b>				425.33		
<b>LINE UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>						
Ludhiana to MacLeodganj	10-11-03	—	156.40	156.40		
<b>GRAND TOTAL</b>				581.73		

\* Information not available.

† Included with the North Western State railway.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 9</sup> <sub>Sub-heads (a) to (j)</sub> NORTH WESTERN STATE RAILWAY SYSTEM—contd.

## 9 (e) Southern Punjab railway (5' 6" gauge)—contd.

## Details of construction—

**Permanent-way.**—The permanent-way consists of 75 lb. flat-footed steel rails laid on transverse sleepers of unseasoned pine and deodar.

**Ballast.**—The line is ballasted throughout with sand and broken stone.

**Fencing.**—The line is fenced near all large towns only.

**Curves.**—There are no curves with a radius of less than 1,000 feet.

**Gradients.**—The ruling gradient is 1 in 400.

## Terms of contracts—

The railway is worked under the following contracts:—

**Contract of**—13th August 1895 (between the Secretary of State and the Southern Punjab Railway Company) for construction and working.

4th May 1899 (between the Secretary of State and the Southern Punjab Railway Company) for construction and working of the Narwana-Kaithal branch.

**Government aid.**—Government allow the Company in respect of each half-year, by way of rebate on the net earnings of the North Western State railway from traffic interchanged with the Southern Punjab railway and from through traffic between stations of the North Western State railway sent over the Southern Punjab railway, such a sum (not exceeding the amount of such net earnings of the North Western State railway) as together with the Company's net earnings, make up an amount equal to interest for the year at the rate of  $3\frac{1}{2}$  per cent. on the actual rupee expenditure charged in the capital account. Land was also provided free of cost to the Company.

**Currency of contract.**—Government may, by giving 12 months' notice, determine the contract on the 31st December 1919, or on the 31st December 1929 or 1939, paying to the Company in sterling a sum equal to 25 times the average of the Company's share of the net earnings of the railway during the last preceding five years, not exceeding by more than 20 per cent. the total capital expenditure of the Company in sterling, nor being less than such capital expenditure. Government may also determine the contract on the 31st December 1948, paying to the Company in sterling a sum equal to the total capital expenditure in sterling.

**Power of Company to surrender contract.**—Nil.

**Terms of working.**—Government undertake to work and maintain the line and provide rolling-stock, at 52 per cent. of the gross earnings. Surplus profits in excess of  $3\frac{1}{2}$  per cent. per annum on the total capital expenditure in sterling are divisible equally at the close of each year between the Government and the Company. The North Western State railway take all receipts from Delhi and Samasata traffic with North Western State railway stations, and the Company also receives nothing on any other traffic passed over the Southern Punjab railway from or to North Western State railway stations, nor from traffic between foreign lines and the North Western State railway, provided that there is any other shorter route.

**Rates and fares.**—Rates and fares to be fixed by Government within the maxima and minima rates and fares in force on the North Western State railway.

## Statistics of working—

Calendar year.	TABLE I.							TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage on capital outlay.	Rebate from N. W. S. Ry.	Total income.	Percentage of total income on capital outlay.	Earnings per mile per week.	Pro. of exp. to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	
1895	21,49,441	...	...	...	...	...	...	...	...
1896	1,30,67,048	...	...	...	...	...	...	...	...
1897	1,99,04,812	1,61,038*	77,398	0.39	17,947	97,240	0.49	77	52.00
1898	2,23,62,921	16,28,254*	7,31,562	3.49	...	7,31,562	3.49	78	52.00
1899	2,26,68,262	16,11,010*	7,78,235	2.94	17,516	7,90,603	3.02	73	52.00
1900	2,26,57,068	16,31,550*	7,37,090	3.27	5,832	7,92,922	3.50	74	52.00
1901	2,25,70,734	24,57,431†	11,79,591	5.22	60,006	12,39,597	5.49	111	52.00
1902	2,27,93,660	19,41,541	9,31,940	4.09	...	9,31,940	4.09	68	52.00
1903	2,28,27,908	21,53,156	10,36,398	4.54	...	10,36,396	4.54	98	52.00

## 9 (f) Khushalgarh-Kohat-Thal railway (2' 6" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Kushalgarh to Kohat	31-10-00	25-5-02	29.70	91.78	1902	30
Kohat to Thal	31-10-00	1-4-03	62.08		1903	92
TOTAL	...	...	...	91.78		

\* Includes credits in accordance with the award by Mr. O. A. Cripps, K.C.

† Excludes credits referred to in the foregoing note which were actually afforded in the year 1901.



Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in report for 1902.]

History of railways constructed and in progress.

[For Index see page 168.]

Number  $\frac{\text{Main head 9}}{\text{Sub-heads (a) to (j)}}$  . NORTH WESTERN STATE RAILWAY SYSTEM—contd.

9 (f) Khushalgarh-Kohat-Thal railway (2' 6" gauge)—concl'd.

Details of construction—

*Permanent-way.*—The permanent-way between Khushalgarh and Kohat consists of flat-footed steel rails, 35 lb. to the yard, laid on wooden sleepers; the Kohat-Thal section is laid partly with 25 lb. and partly with 21 lb. rails, partly on wooden and partly on steel sleepers.

*Ballast.*—The line is ballasted throughout with sand and broken stone.

*Fencing.*—The line is unfenced.

*Curves.*—Of curves with a radius of less than 500 feet there are 1.2 miles distributed over the line, the radii varying from 239 to 471 feet.

*Gradients.*—The ruling gradient between Khushalgarh and Kohat is 1 in 83 and between Kohat and Thal, 1 in 100.

*Terms of contracts.*—The line is owned and worked by the State.

Statistics of working—

TABLE I.	TABLE II.		
	Calendar year.	Earnings per mile per week.	Proportion of expenses to earnings.
Included with the North Western State railway	1902	Rs. 19	58.44
	1903	34	174.55

9 (g) Nowshera-Durgai railway (2' 6" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
Nowshera to Durgai	15-5-99	1-1-01	Miles. 40.25	Miles. 40.25

Details of construction—

*Permanent-way.*—The permanent-way consists of 35lb. flat-footed steel rails laid partly on wooden and partly on steel sleepers.

*Ballast.*—The line is ballasted throughout with sand and broken stone.

*Fencing.*—The line is unfenced.

*Curves.*—The sharpest curve has a radius of 477 feet.

*Gradients.*—The ruling gradient is 1 in 100.

*Terms of contracts.*—The railway is owned and worked by the State.

Statistics of working—

TABLE I.	TABLE II.		
	Calendar year.	Earnings per mile per week.	Proportion of expenses to earnings.
Included with the North Western State railway	1902	Rs. 51	151.11
	1903	53	101.66

9. (h) Dandot Light railway (2' 0" gauge)—

The Dandot Light railway has been constructed by the North Western State railway to develop the Dandot colliery which is worked primarily for the benefit of the railway. The section from Dandot to the mouth of the main mine consists chiefly of two inclines worked with steel wire ropes by combined gravity and steam power. On the Second portion (1.29 miles), there is another incline worked by gravity alone.

**APPENDIX 38—contd.**  
[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

**Appendix 38.**  
**History of railways.**

*History of railways constructed and in progress.*  
[For Index see page 168.]

Number Main head 9.  
Sub-heads (a) to (j) **NORTH WESTERN STATE RAILWAY SYSTEM—concl'd.**

**9 (h) Dondot Light (2' 0" gauge)—concl'd.**

**Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
Dondot station to the mouth of the main mine . . . . .	...	5-7-89	Miles. 1'89	Miles.	1889	} 2 3 3 6
Head of middle incline to shaft No. 10 of outcrop mine . . . . .	...	1-7-93	1'29		to 1892	
Head of upper incline to Pith coal platform . . . . .	...	6-6-95	3'00		1893 1894 1895	
<b>TOTAL</b>	...	...	...	6'18	to 1903	

**Details of construction—**

*Permanent-way.*—The permanent-way consists of old metre gauge 36 lb. and 40 lb. rails laid on deodar sleepers.

*Ballast.*—The line is ballasted throughout with sand and broken stone.

*Curves.*—One semi-circular curve of a radius of 75 feet is used to enable the line to turn on itself.

*Terms of contracts.*—The line is owned and worked by the State.

*Statistics of Working.*—Included with the North Western State railway.

**9 (i) Jullundur-Kapurthalla-Sultanpur (British section)\*—**

**Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
Jullundur to the British frontier . . . . .	7-8-03	...	Miles. 6'80	Miles. 6'80

Commencement of work not yet authorised.

**9 (j) Jullundur-Kapurthalla-Sultanpur (Native State section)\*—**

**Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
Sultanpur to the British frontier . . . . .	7-8-03	...	Miles. 22'02	Miles. 22'02

Commencement of work not yet authorised.

Number Main head 10.  
Sub-heads (a) to (c) **ODDH AND ROHILKHAND STATE RAILWAY SYSTEM—**

**Lines comprising system.**—The Oudh and Rohilkhand State railway system is made up of—

	Open line. Miles.	Under construction. Miles.	Total Miles.
(a) Oudh and Rohilkhand State railway (5' 6" gauge) . . . . .	1,101'19	124'62	1,225'81
(b) Hardwar-Dehra railway (5' 6" gauge) . . . . .	32'04	...	32'04
(c) Cawnpore-Burhwal link (3' 3½" gauge) . . . . .	79'60	...	79'60
<b>Total</b>	<b>1,212'83</b>	<b>124'62</b>	<b>1,337'45</b>

**Running powers—**

	Miles.
<i>Home lines over Foreign lines:—</i>	
Ghaziabad to Delhi, East Indian railway . . . . .	13'00
Daliganj to Aishbagh, Rohilkhand and Kumaon (Lucknow-Bareilly section) . . . . .	3'68
<i>Foreign line over Home line:—</i>	16'66
Indian Midland railway, at Cawnpore . . . . .	0'86
" " " " Cawnpore to Lucknow . . . . .	44'63
	45'49

\* Question of gauge not yet finally settled.

# Appendix 38.

## History of railways.

# APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

## History of railways constructed and in progress.

[For Index see page 168.]

### Number Main head 27 OUDH AND ROHILKHAND STATE RAILWAY SYSTEM.—contd.

Sub-heads (a) to (c)

#### 10 (a) Oudh and Rohilkhand State railway proper (5' 6" gauge)—contd.

The Oudh and Rohilkhand railway was acquired by the State from the late guaranteed Company on the 1st January 1889.

A tramway constructed at the expense of Messrs. Carew and Company connects the Rosa Sugar factory with Rosa station on the Oudh and Rohilkhand State railway. This tramway is 3.25 miles long and is worked by manual power. It is used for goods traffic only.

#### Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<b>Main lines—</b>			Miles.	Miles.		Miles.
Moghal Sarai to Bechpur . . . . .	11-5-01	*31-10-02	1.41		1867	42
Bechpur to mile 3.25	"	22-12-62	2.14		1868	42
From mile 3.25, south of the Dufferin bridge, to Kashi (Benares Ganges) station	"	1-10-87	4.25		1869	42
From Kashi (Benares Ganges) station to Benares Cantonment	"	18-6-83	1.50		1870	42
Benares Cantonment to Rae Bareilly	Oct. 1895	4-4-98	138.36		1871	42
Rae Bareilly to Lucknow	5-8-91	18-10-93	48.56		1872	42
Lucknow to Sandila	"	1-2-72	30.00		1873	298
Sandila to Hardoi	"	15-7-72	89.00		1874	456
Hardoi to Shahjahanpur	"	1-8-73	39.00		1875	540
Shahjahanpur to Faridpur	"	8-9-73	32.00		1876	544
Faridpur to Bareilly	"	1-11-73	13.00		1877	544
Bareilly to Moradabad (chord line via Rampur)	4-12-91	8-6-94	56.07		1878	544
Moradabad to Nagina	"	8-10-94	47.25		1879	547
Nagina to Najibabad	29-8-81	1-4-95	13.70		1880	547
Najibabad to Saharanpur	"	1-1-86	58.25		1881	547
			518.49			
<b>Benares-Lucknow loop—</b>						
Benares Cantonment to Shahganj	"	5-1-74	56.03		1882	547
Shahganj to Bilwai	"	1-5-74	7.00		1883	548
Bilwai to Malipur	"	17-4-74	9.00		1884	595
Malipur to Akbarpur	"	2-8-74	12.00		1885	607
Akbarpur to Fyzabad	"	10-6-78	36.00			
Fyzabad to Bara Banki	"	25-11-72	62.00		1886	696
Bara Banki to Lucknow	"	1-1-72	17.00		1887	692
			199.03			
<b>Bareilly-Moradabad loop—</b>						
Bareilly to Ukka	"	22-12-73	5.60		1888	692
Ukka to Aonla	"	1-11-73	11.00		1889	692
Aonla to Chandausi	"	10-6-73	27.00		1890	692
Chandausi to Moradabad	"	23-10-72	27.50		1891	692
			70.60		1892	692
					1893	741
					1894	797
					1895	797
					1896	812
					1897	812
					1898	950
					1899	950
					1900	1,037
					1901	1,037
					1902	1,039
					1903	1,101
<b>Total Main and Loop lines</b>				769.02		
<b>Branches on main line—</b>						
<b>Cawnpore branch—</b>						
Lucknow to Cawnpore	Jan. 1864	23-4-67	42.00		1896	812
Left bank Ganges to junction with the East Indian railway at Cawnpore	"	15-7-75	43.22		1897	950
Passenger approach to the East Indian railway at Cawnpore	"	21-2-88	0.23		1898	950
			45.45		1900	1,037
					1901	1,037
					1902	1,039
					1903	1,101
<b>Madhoganj branch—</b>						
Balawan to Madhoganj	15-8-02	20-12-03	14.50			
<b>Ghaziabad branch—</b>						
Moradabad to Gajronla	8-4-97	1-4-00	33.40			
Gajronla to Ghaziabad	"	25-11-00	53.37			
			86.77			
<b>Kotdwara branch—</b>						
Najibabad Junction to the right bank of the Koh river opposite Kotdwara	Oct. 1895	24-12-96	15.19			
<b>Hardwar branch—</b>						
Ibaksar Junction to the left bank of the Ganges Canal near Jawalapur	15-5-83	1-1-86	13.53			
Left bank of the Ganges Canal near Jawalapur to Hardwar	"	20-8-86	8.53			
			17.06			
<b>Branches on Benares-Lucknow loop—</b>						
<b>Ajodhya Ghat branch—</b>						
Ranupali to Ajodhya Ghat	16-12-84	15-11-86	3.22			
<b>Allahabad branch—</b>						
Sultanpur to Chilibila	8-11-01	10-4-03	22.07			
Partabgarh to Siwai	"	20-3-03	24.98			
			47.05			
<b>Bahramghat branch—</b>						
Bara Banki to Bahramghat	"	20-11-72	21.52			
<b>Branches on the Bareilly-Moradabad loop—</b>						
<b>Aligarh branch—</b>						
Chandausi to Rajghat	"	28-10-72	30.48			
Rajghat to Aligarh	"	1-2-72	30.12			
			60.60			
<b>Benares City branch—</b>						
Benares Cantonment (Oudh and Rohilkhand) to Benares City (Bengal and North-Western) (3' 3 3/4" gauge)	"	1-4-99	1.81			
<b>Total Branches</b>				313.17		
<b>TOTAL OPEN MILEAGE, OUDH AND ROHILKHAND STATE RAILWAY PROPER, CARRIED OVER</b>				1,101.19		

\* This is the date of the new alignment, the date of the old alignment (1.11 miles) was 22nd December 1862.  
† Of this 0.59 mile on the Cawnpore bridge is mixed (5' 6" and 3' 3 3/4") gauge.  
‡ Excluding 2.45 miles (Partabgarh to Chilibila), existing line of the Oudh and Rohilkhand State railway.  
§ Of this the length from Burhwal to Bara Banki, 16.79 miles, is mixed (5' 6" and 3' 3 3/4") gauge.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 10</sup> Sub-heads (a) to (c). **ODDH AND ROHILKHAND STATE RAILWAY SYSTEM—contd.**

10. (a) Oudh and Rohilkhand State railway proper (5' 6" gauge)—concl'd.

Progress in opening—concl'd.

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Total open mileage, brought forward				
LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION				
<i>Allahabad branch—</i>				
Fyzabad to Sultanpur	6-11-01	1-2-04	36.37	
Siwait to Phaphaman		20-1-04	3.63	
Phaphaman to Allahabad		*31-3-05	7.62	
<i>Zafarabad branch—</i>				
Phaphaman to Zafarabad	2-10-03	...	57.50	
<i>Meerut branch—</i>				
Hapur to Meerut	3-4-03	...	19.50	
			124.62	
Total lines under construction				
	...	...	...	124.6
GRAND TOTAL, ODDH AND ROHILKHAND STATE RAILWAY PROPER				
	...	...	...	1,225.8

Details of construction.—

*Permanent way.*—The permanent way at first adopted consisted of 60 lb. iron rail, laid partly on cast iron oval bow and partly on wrought-iron saddle-back sleepers. Up to 1889, the original iron rails had been replaced by 60 lb. steel rail since 1889, all renewals have been made with 75 lb. steel rails of the Indian State railway pattern, laid on metal wooden sleepers, the former being steel bowls, or cast-iron bowls made locally, and the latter sal and deodar. A new line are laid with 75 lb. steel rails on cast-iron pot or wooden sleepers.

*Ballast.*—The system is ballasted throughout, either with sand or earth with a covering of broken brick or of kunkur or with kunkur, stone, or shingle.

*Bridges.*—See Appendix 36.

*Fencing.*—The line is fenced throughout.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 400.

Terms of contract.—

The Oudh and Rohilkhand State railway is owned and worked by the State.

Statistics of working.—

Calendar year.	TABLE I.							TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest	Surplus profits paid to Company.	Gain or loss to the State.	Earnings per mile per week.	Pro: d exp: t earning.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	
1867	...	...	...	...	...	...	...	74	106
1868	...	...	...	...	...	...	...	120	64
1869	...	...	...	...	...	...	...	97	81
1870	...	...	...	...	...	...	...	112	227
1871	...	...	...	...	...	...	...	117	69
1872	...	...	...	...	...	...	...	56	68
1873	...	...	...	...	...	...	...	56	72
1874	...	...	...	...	...	...	...	72	64
1875	...	...	...	...	...	...	...	97	59
1876	...	...	...	...	...	...	...	120	68
1877	...	...	...	...	...	...	...	153	52
1878	...	...	...	...	...	...	...	163	54
1879	5,80,35,764	43,44,843	18,19,936	3.14	28,00,000	...	-9,80,064	153	58
1880	6,02,24,681	44,55,150	19,04,409	3.16	28,19,946	...	-9,15,597	157	57
1881	6,25,30,935	49,28,730	19,75,699	3.16	29,14,137	...	-9,38,438	173	59
1882	6,52,79,840	52,62,844	18,01,371	2.76	30,67,622	...	-12,66,251	185	65
1883	7,07,69,446	54,56,255	24,80,362	3.50	31,35,495	...	-6,55,139	192	54
1884	7,91,43,363	52,75,193	23,26,146	2.94	41,14,587	...	-17,88,441	182	55
1885	8,54,34,426	55,37,369	17,95,361	2.10	46,53,333	...	-28,57,972	176	65
1886	8,95,12,775	65,05,408	28,60,755	3.20	51,88,014	...	-23,27,259	180	56
1887	9,17,06,668	66,46,213	31,85,249	3.42	53,98,339	...	-22,63,090	186	52
1888	9,18,41,649	70,77,053	30,16,005	3.28	51,67,494	...	-21,51,489	197	57
1889	9,22,32,228	75,39,683	42,04,076	4.56	49,71,898	...	-7,67,822	209	44
1890	9,27,89,280	73,81,396	37,54,478	4.05	44,28,109	...	-6,68,631	205	46
1891	9,28,38,358	85,64,209	49,42,458	5.32	47,25,666	...	+2,16,702	238	42
1892	10,34,95,083	85,42,836	50,16,329	4.84	52,79,411	...	-2,68,652	237	41
1893	10,09,17,292	87,15,926	50,17,053	4.97	55,01,058	...	-4,84,005	239	45
1894	10,28,87,184	1,05,18,896	57,36,188	5.58	63,11,123	...	-5,74,985	262	42
1895	10,65,05,148	1,02,94,880	52,55,948	4.93	63,69,949	...	-11,14,901	248	42
1896	10,92,69,485	36,97,076	43,50,907	3.98	61,30,729	...	-17,79,822	209	45
1897	11,44,19,239	85,15,856	86,96,778	3.23	59,77,486	...	-22,66,708	186	54
1898	11,64,90,213	98,51,599	53,07,727	4.56	58,76,247	...	-5,68,520	190	44
1899	12,21,84,423	1,11,38,990	60,76,595	4.97	59,75,292	...	+1,01,393	208	4
1900	12,55,94,869	1,15,18,132	55,91,727	4.45	62,28,185	...	-6,36,458	208	5
1901	12,88,66,865	1,32,54,991	72,20,007	5.60	63,12,044	...	+9,07,963	231	4
1902	13,65,17,057	1,31,65,792	64,11,336	4.70	64,75,905	...	-64,569	230	5
1903	14,52,62,379	1,39,49,922	73,31,862	4.98	68,00,305	...	+4,31,557	226	4

\* Probable date of opening.

Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 10</sup> <sub>Sub-heads (a) to (c)</sub> OUDH AND ROHILKHAND STATE RAILWAY SYSTEM—*contd.*

## 10 (b) Hardwar-Dehra railway (5' 6" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
Hardwar to Dehra . . . . .	18-11-96	1-3-00	Miles. 32'04	Miles. 32'04

## Details of construction—

*Permanent-way.*—The permanent-way consists of 75 lb. flat-footed steel rails on deodar sleepers.

*Ballast.*—The line is ballasted throughout with shingle, with a covering of broken stone for boxing.

*Fencing.*—The line is only partially fenced.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 75.

## Terms of contracts—

The Hardwar-Dehra railway is worked under the following contract :—

*Contract of*—26th March 1897 (between the Secretary of State and the Hardwar-Dehra Railway Company) for construction and working.

The general conditions of the contract are as follows :—

*Government aid.*—Interest at 3 per cent. per annum is guaranteed. Government also allow Rs. 3,600 for office and management expenses in any year in which the minimum dividend of 3 per cent. is not received by the Company from the earnings of the line, and pay all legal expenses properly debitable to revenue. Land is also provided free of charge.

*Terms of contract.*—The Hardwar-Dehra Railway Company is authorised to raise 30 lakhs of rupees as capital and except for *bonâ fide* temporary purposes, at a reasonable rate of interest, the Company cannot, without the sanction of Government or the working agency, increase its share or stock capital.

*Currency of contract.*—Government may determine the contract, on twelve months' notice either on the 31st December 1919 or at the expiration of any subsequent period of ten years, by paying a sum equal to 25 times the average yearly net earnings during the three years prior to determination, provided the payment does not exceed by more than 2 per cent., or is not less than, the total capital expenditure.

*Power of Company to surrender contract.*—Nil.

*Terms of working.*—After deduction of 50 per cent. of the gross earnings for working expenses, (which may include any single item of capital expenditure, not exceeding Rs. 1,000 classed as a 'Minor Work', subject to a maximum charge on such account of Rs. 20 per mile of line open in each half-year) and repayment to Government of the interest paid by Government under the contract and attributable to each half-year, the residue, if any, at the end of the year to be divided in equal proportions between the Government and the Company.

*Rates and fares.*—Rates and fares to be arranged between Government and the working agency within one-and-half times the maximum and minimum rates and fares in force on the Oudh and Rohilkhand State railway.

## Statistics of working—

Calendar year.	TABLE I.						TABLE II.		
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Company's share of net traffic receipts.	Gain or loss to the State.	Earnings per mile per week.	Pro: of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	
1897 . . . . .	1,09,617	...	...	...	†	...	...	...	...
1898 . . . . .	16,70,315	...	...	...	†	...	...	...	...
1899 . . . . .	23,12,587	...	...	...	†	...	...	...	...
1900 . . . . .	25,67,093	1,60,485	...	...	†	...	...	...	...
1901 . . . . .	24,11,301	2,13,456	1,06,728	3.90	81,220	...	+22,508	115	50.00
1902 . . . . .	24,36,186	2,52,145	1,26,242	4.15	85,043	11,253	+29,941	128	50.00
1903 . . . . .	26,41,512	2,62,719	1,31,359	4.62	85,260	20,597	+25,502	158	50.00

## 10 (c) Cawnpore-Burhwal (3' 3½" gauge) link—

The construction of the Cawnpore-Burhwal (3' 3½" gauge) link was sanctioned as a part of the project for linking up the 3' 3½" gauge systems of Northern India. The mileage shown excludes 3.66 miles of the existing line of the Lucknow-Bareilly railway between Daliganj and Aishbagh, which forms a part of the alignment of this line. Starting from the north of Burhwal station, on the Oudh and Rohilkhand State railway, it runs up to Bara Banki along a third rail laid inside the Oudh and Rohilkhand State railway line, and thence on to Malhaur a separate 3' 3½" track has been laid parallel to, and 14 feet distant from, the Oudh and Rohilkhand State railway track. From Malhaur it deviates to the east, over new country, and joins the Lucknow-Bareilly railway at the north end of Daliganj station. Passing through Daliganj, the Lucknow-Bareilly railway is utilized to Aishbagh, where it crosses that railway and runs for 2.08 miles over new country; it joins the Cawnpore branch of the Oudh and Rohilkhand State railway at mile 2.80 from Lucknow, then runs parallel to the latter line up to the Cawnpore bridge station, from which point a third rail has been laid across the Ganges bridge. After clearing the bridge, the separate track, parallel to the Oudh and Rohilkhand State railway is resumed and followed up to and through the Cawnpore (Oudh and Rohilkhand State railway) station yard, and, passing on, crosses the Grand Trunk Road, Ganges canal, and East Indian railway goods siding on a grade crossing, and joins the Cawnpore-Achnera railway at mile 83.26.

\* Paid over to the Company.

† Interest was charged to Capital.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[ For Index see page 168.]

Number <sup>Main head 10</sup> <sub>Sub-heads (a) to (c)</sub> OUDH AND ROHILKHAND STATE RAILWAY SYSTEM—concl'd.

10 (c) Cawnpore-Burhwal (3' 3½" gauge) link—concl'd.

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
Burhwal to Daliganj . . . . .	Oct. 1894	24-11-95	Miles. 34.57	Miles. 79.60	1896	35
Aishbagh to Cawnpore . . . . .		25-4-97	†45.03		1897	80
					1898	80
					1899	80
					1900	80
					1901	80
					1902	80
					1903	80
TOTAL . . . . .	...	...	...	79.60		

Details of construction—

*Permanent-way.*—Where the line is not mixed gauge, it is laid with new 50 lb. steel rails.*Ballast.*—The line is ballasted throughout either with sand or earth with a covering of broken brick or kunkur, or with kunkur, stone, or shingle.*Fencing.*—The line is fenced throughout.*Curves.*—The sharpest curve has a radius of 573 feet.*Gradients.*—The ruling gradient is 1 in 400.

Terms of contract—

The Cawnpore-Burhwal railway is owned and worked by the State.

Statistics of working—

Included with the Oudh and Rohilkhand State railway (5' 6" gauge).

Number <sup>Main head 11</sup> <sub>Sub-heads (a) and (b)</sub> ASSAM-BENGAL RAILWAY SYSTEM—

Lines comprising system.—The Assam-Bengal railway system is made up of—

(a) Assam-Bengal railway (3' 3½" gauge)	Open line.
(b) Noakhali (Bengal) railway (3' 3½" gauge)	Miles. 740.38
	34.90
Total	775.28

As it was considered that railway communication with Bengal and Assam was a matter of urgency, the construction of the Assam-Bengal railway as a State line was sanctioned in May 1891. The Assam-Bengal Railway Company was subsequently formed in England in April 1892 and took over the works commenced by the State.

11 (a) Assam-Bengal railway proper (3' 3½" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.		
					Calendar year.	Mileage open.	
<b>Main line—</b>			Miles.	Miles.		Miles.	
Chittagong Port to Chittagong . . . . .	28-5-91	3-11-95	1.73	576.61	1895	130	
Chittagong to Feni . . . . .		1-7-95	56.90		1896	286	
Feni to Comilla . . . . .		1-7-95	39.10		1897	361	
Comilla to Akhaura . . . . .		1-1-96	29.41		1898	379	
Akhaura to Karimganj . . . . .		‡4-12-96	115.00				
Karimganj to Badarpur . . . . .		‡4-12-96	12.00		1899	432	
Badarpur to Damchhara . . . . .		23-4-99	18.53		1900	436	
Damchhara to Lumding . . . . .		1-12-03	96.70				
Lumding to Nazira . . . . .		1-1-01	141.87		1901	589	
Nazira to Lakwa . . . . .		15-11-01	10.71		1902	5.89	
Lakwa to Bhojo . . . . .		1-2-03	12.72		1903	7.40	
Bhojo to Tinsukia . . . . .		1-3-03	41.94				
Total Main line . . . . .		...	...		...	576.61	
<b>Branches—</b>							
<b>Chandpur branch—</b>							
Laksam to Chandpur . . . . .	28-5-91	1-7-95	31.62	163.77			
<b>Silchar branch—</b>							
Badarpur to Katta Khal . . . . .		13-6-98	6.27				
Katta Khal to Silchar . . . . .	8-11-98	12.35					
			18.62				
<b>Gauhati branch—</b>							
Gauhati to Gauhati Ghat . . . . .	28-5-91	‡1-1-97	1.32	113.53			
Gauhati to Jamuna Mukh . . . . .		‡1-1-97	74.11				
Jamuna Mukh to Lanka . . . . .		‡2-1-99	19.11				
Lanka to Lumding (temporary station) . . . . .		1-3-99	15.55				
Lumding (temporary station) to Lumding . . . . .		20-2-00	3.44				
Total Branches . . . . .	...	...	...	163.77			
TOTAL . . . . .	...	...	...	740.38			

\* Including the length Burhwal to Bars Banki, 10.79 miles, laid on a mixed (5' 6" and 3' 3½") gauge.

† Including the length on the Cawnpore bridge, 0.59 mile, laid on a mixed (5' 6" and 3' 3½") gauge.

‡ Closed for repairs after the earthquake of 12th June 1897 and reopened as follows:—

Akhaura to Srimangal . . . . .	20-7-97	Karimganj to Badarpur . . . . .	18-10-97
Srimangal to Kalaura . . . . .	24-7-97	Gauhati to Gauhati Ghat . . . . .	2-1-99
Kalaura to Karimganj . . . . .	8-8-97	Gauhati to Jamuna Mukh . . . . .	2-1-99

|| Owing to the bad state of the road due to excessive rains, this length was closed for public traffic on and from 2nd October 1899 and re-opened on the 1st January 1900.

Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.  
[For Index see page 168.]

Number <sup>Main head 11</sup> <sub>Sub-heads (a) and (b)</sub> ASSAM-BENGAL RAILWAY SYSTEM—contd.

11 (a) Assam-Bengal railway proper (3' 3½" gauge)—contd.

Details of construction—

*Permanent-way.*—The line is laid with 50 lb. flat-footed steel rails partly on sal and pyinkado and partly on bastard sageshur and jara wood sleepers.

*Ballast.*—The ballast consists of broken brick, stone and laterite.

*Tunnels.*—See Appendix 37.

*Bridges.*—See Appendix 36.

*Fencing.*—The line is fenced between Chittagong Port and Silchar, Laksam and Chandpur, Gauhati Ghat and Gauhati and half a mile from Gauhati towards Lumding.

*Curves.*—On the Hill section the curves vary from 477 feet to 955 feet radius. On the rest of the line, there are no curves under a radius of 1,000 feet.

*Gradients.*—The ruling gradient between Chittagong and Badarpur is 1 in 150; between Badarpur and Lumding 1 in 65; between Gauhati and Tinsukia, 1 in 100; between Laksam and Chandpur, 1 in 300; between Badarpur and Silchar, 1 in 150.

Terms of contract—

The Assam-Bengal railway is worked under the following contract:—

*Contract of*—26th April 1892 (between the Secretary of State and the Assam-Bengal Railway Company) for construction and working.

The general conditions of the contract are as follows:—

*Government aid.*—Government guarantee interest in sterling at 3 per cent. on the Company's share capital of £1,500,000. Up to 30th June 1898, interest was allowed at 3½ per cent. Land was provided free of charge.

*Terms of contract.*—The contract provides that the Company raise £1,500,000, and that any further money required, be either supplied by the Government or raised by the Company under guarantee. Subject to the provisions of the contract, all land and everything constructed or to be constructed thereon, and generally all property, whether real or personal, (with the exception of moneys paid against interest on the Company's share capital and sums applied from the earnings), are the property of Government, but are subject to use and enjoyment by the Company during the continuance of the contract.

*Currency of contract.*—Government may determine the contract, by giving 12 months' previous notice, on the 31st December 1921 or at the end of any succeeding 10th year. Government may also determine the contract at any time on six months' notice, if the Company fail to fulfil their obligations or the line is worked at a loss. On the determination of the contract, the Company are to hand over to Government the railway and all its belongings of every description, and repayment of the amount of the par value of the share capital paid by the Company to Government.

*Power of Company to surrender contract.*—Nil.

*Terms of working.*—After deducting working expenses (which include any single item of capital expenditure, not exceeding Rs. 1,000 classed as a 'Minor Work,' subject to a maximum charge on such account of Rs. 15 per mile of line open in each half-year, and a payment of Rs. 40 for every mile of line open to traffic to be made half-yearly to Government for supervision) the net earnings to be applied in payment of—

Contribution due to the Provident Fund, calculated at one per cent. of net earnings.

The equivalent in rupees of interest paid on debenture capital; provided that if the Company's share capital is not less than  $\frac{3}{11}$ ths of the total capital expenditure, the rate of interest recovered under this sub-head (on debentures issued previous to the 30th June 1898) shall not exceed the rate for the time being applicable to the Company's share capital.

The equivalent in rupees of guaranteed interest paid to the Company in respect of share capital; interest on the capital contributed or deemed to be contributed by Government, at the same rate as the guarantee for the time being on the Company's capital. But if the Government capital exceed  $\frac{3}{11}$ ths of the total capital expenditure for the time being, the rate of interest on the amount of the excess to be subject to agreement; and the residue is divisible between Government and the Company in the ratio of their respective capital expenditure.

*Rates and fares.*—Certain maxima and minima have been fixed within which the Company is permitted to vary its rates.

Statistics of working—

Calendar year.	TABLE I.						TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Gain or loss to the State.	Earnings per mile per week.	Proportion of expenses to earnings.
1891	Rs. 1,53,203	Rs. ...	Rs. ...	...	Rs. 5,893	Rs. -5,893	...	...
1892	30,16,133	...	...	...	2,66,378	-2,66,378	...	...
1893	1,07,63,192	...	...	...	7,09,987	-7,09,987	...	...
1894	2,46,89,898	...	...	...	8,76,954	-8,76,954	...	...
1895	4,04,38,298	2,14,428	-8,047	...	13,95,636	-14,08,688	64	183.75
1896	5,21,89,304	6,18,785	83,238	0.06	23,73,034	-23,80,798	71	94.63
1897	6,37,67,401	9,90,640	72,214	0.11	22,56,279	-21,84,065	63	92.71
1898	7,56,41,721	13,08,124	54,551	0.07	24,45,275	-23,90,724	86	95.83
1899	8,69,56,236	16,19,648	3,22,704	0.37	28,63,084	-25,40,380	75	80.08
1900	9,56,01,772	17,09,955	8,64,864	0.38	33,31,330	-29,67,026	75	78.69
1901	10,41,49,467	21,34,252	4,56,654	0.44	35,06,252	-30,49,598	70	78.60
1902	11,11,34,922	20,96,058	2,54,478	0.23	38,08,387	-35,53,969	68	87.66
1903	*12,40,28,548	23,97,658	4,43,963	0.36	40,71,450	-36,27,487	72	80.51

\* Including Rs. 75,70,037, interest charges to the 30th June 1898, debited to capital.



APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[ For Index see page 168.]

Number Main head 11 ASSAM-BENGAL RAILWAY SYSTEM—*concl'd.*  
Sub-heads (a) and (b)

11 (b) Noakhali (Bengal) railway (3' 3½" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
Laksam to Noakhali	6-4-01	15-5-03 10-11-03	Miles. 30.46	Miles. 34.90
Noakhali to Saheb Ghatta			4.44	
TOTAL	...	...	...	34.90

## Details of construction—

*Permanent-way.*—The line is laid with 41½ lb. steel rails on sal sleepers. A few jara wood sleepers have also been used.

*Ballast.*—The line is not ballasted.

*Fencing.*—The line is unfenced.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 200.

## Terms of contracts—

The Noakhali (Bengal) railway is worked under the following contracts:—

*Contract of*—27th March 1901 [between the Secretary of State and the Noakhali (Bengal) Railway Company] for construction of the line.

27th March 1901 [between the Assam-Bengal Railway Company, and the Noakhali (Bengal) Railway Company] for working the line.

The general conditions of the contracts are as follows:—

*Government aid.*—If the net earnings in any half-year are less than Rs. 30,000, Government allow as rebate a sum not exceeding one-half of the gross earnings of such half-year of the Assam-Bengal railway from interchanged traffic (except stores) as will, together with the net earnings of the Company, make up an amount equal to Rs. 30,000. Land also has been provided free of charge.

*Terms of contract.*—The Company's share or stock capital is limited to £130,000, which cannot be increased without the sanction of the Secretary of State and of the working agency; but the Company can raise money at a reasonable rate of interest for *bond fide* temporary purposes.

*Currency of contract.*—The Secretary of State may, by giving notice and by paying to the Company in India the value of the railway, works, plant, machinery and stores, determine the contract, if the Company fail to comply with their obligations under the contract. The Secretary of State may, by giving twelve months' notice determine the contract, either on the 31st December 1922 or on the 31st December in the last year of any subsequent period of ten years, on paying to the Company in India, within four calendar months from the time at which the contract should be determined, a sum equal to twenty-five times the average yearly net earnings during the three years immediately preceding provided that the amount so payable shall not exceed by more than 20 per cent. the balance on the Capital Account of the Company, or be less than such balance.

*Terms of working.*—The gross earnings are to be applied in payment—

(1) To the credit of the Provident Institution of the Assam-Bengal railway of a sum equal to one-half of 1 per cent. of the total gross earnings;

(2) Of Rs. 25 per mile open per week of the new railway maintainable by the Company; and of Rs. 35 per mile open per week of the new railway not maintainable by the Company, which includes any single item of capital expenditure, not exceeding Rs. 1,000 classed as a 'Minor Work,' subject to a maximum charge on such account of Rs. 15 per mile of line open in each half year; and

(3) Of all moneys paid or payable to the Secretary of State for the supervision of such mileage during such half-year, the residue to be paid over to the Company as the net earnings of the railway.

*Rates and fares.*—The rates and fares to be fixed from time to time by the Secretary of State after consultation with the working agency, within the maxima and minima for the time being in force on the Assam-Bengal railway.

## Statistics of working—

TABLE I.								TABLE II.	
Calendar year.	Capital outlay to end of year.	Gross earnings.	Net traffic receipts.	Percentage on capital outlay.	Rebate from Assam-Bengal railway.	Total income.	Per cent. of total income on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	
1903	21,04,827	30,099	2,409	0.11	23,389	25,798	1.23	30	92.00

Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 168.]

Number Main head 12 BENGAL AND NORTH-WESTERN RAILWAY SYSTEM—  
Sub-heads (a) to (c)

Lines comprising system.—The Bengal and North-Western railway system is made up of—

	Open line. Miles.	Under construction. Miles.	Total Miles.
(a) Bengal and North-Western railway (3' 3½" gauge)	812'96	184'88	997'84
(b) Sagauli-Raxaul railway (3' 3½" gauge)	18'09	...	18'09
(c) Tirhoot State railway (3' 3½" gauge)	516'39	238'35	755'24
<b>Total</b>	<b>1,347'94</b>	<b>423'23</b>	<b>1,771'17</b>

Running powers—

Home line over Foreign lines—

	Miles.
Cawnpore to Burhwal, Cawnpore-Burhwal (3' 3½" gauge) link Oadh and Rohilkhand State railway	83'00
Benares Cantonment to Benares City, Oadh and Rohilkhand State railway	1'81
<b>Total</b>	<b>84'81</b>

The Bengal and North-Western railway has direct communication with the railway system of India at only three points on its system, viz., at Burhwal, Benares and Katihar. At all other points, communication is interrupted by rivers. Communication across the Ganges is maintained with the East Indian railway at the following ferries: between Ghazipur and Tarighat (ordinary steam ferry); between Paleza Ghat and Digha Ghat (ordinary steam ferry); between Semaria Ghat and Mokameh Ghat (wagon ferry); and between Barari Ghat and Bhagalpur Ghat (wagon ferry). Eventually a branch between Bhagalpur Ghat and the East Indian railway at Bhagalpur will connect the Bengal and North-Western and East Indian railways via the Bhagalpur ferry. Between Khanwa Ghat on the Kosi extension of the Tirhoot State railway and Anchara Ghat on the Kosi branch of the Eastern Bengal State railway, there is a country boat ferry worked by the Eastern Bengal State railway. There is a bridge of boats between Ajodhya and Ajodhya Ghat during the dry weather months, but during the rains this bridge is removed and replaced by a steam ferry. The Tirhoot State railway was worked by State agency until 1890, when it was leased to the Bengal and North-Western Railway Company.

12 (a) Bengal and North-Western railway proper (3' 3½" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<b>Main line—</b>			Miles.	Miles.		Miles.
Sonepur to Mankapur . . . . .	18-5-82	15-1-85	218'50	247'94	1894	75
Mankapur to Nawabganj . . . . .		2-4-84	14'00		1895	803
Nawabganj to Ajodhya . . . . .		1-12-84	6'10		1896	876
			238'60			
<b>Loop line—</b>						
Sonepur to Bunwarchak . . . . .	18-5-82	15-1-85	9'34		1897	376
<b>Total Main and Loop lines</b>	...	...	...	247'94	1898	376
<b>Branches—</b>						
<b>Uska Bazar branch—</b>						
Gorakhpur to Uska Bazar . . . . .	8-8-85	15-12-86	39'58		1899	376
<b>Naipalganj Road branch—</b>						
Mankapur to Bahraich . . . . .	18-5-82	2-4-84	55'00		1891	401
Bahraich to Naipalganj Road . . . . .		15-12-86	33'98	1892	414	
			88'98		1893	414
<b>Revelganj branch—</b>						
Chupra to Revelganj . . . . .	Nov. 1899	15-4-91	7'34		1894	414
Revelganj to Manjhi Ghat . . . . .		...	1-4-99	8'71		1895
			11'05		1896	479
<b>Bahramghat branch—</b>						
Gonda to Colonelganj . . . . .	Nov. 1899	29-10-91	17'75		1897	485
Colonelganj to Jarwal Road . . . . .		1-2-92	10'30	1898	586	
			28'05		1899	743
<b>Burhwal branch—</b>						
Jarwal Road to the west bank of the Gogra river . . . . .	10-1-95	18-12-96	2'63		1900	743
Gograhat to Ganeshpur . . . . .		24-12-98	3'27	1901	743	
Chowka Ghat to Burhwal . . . . .		24-11-98	4'12	1902	743	
			10'02		1903	813
<b>Tulsipur branch—</b>						
Gonda to Balrampur . . . . .	10-1-95	15-12-98	22'00		1902	743
Balrampur to Tulsipur . . . . .		1-6-98	19'00	1903	813	
			41'00			
<b>Katarnian Ghat branch—</b>						
Nanpara to Mohinpurwa . . . . .	10-1-95	15-12-98	15'00			
Mohinpurwa to Katarnian ghat . . . . .		25-3-98	27'08			
			42'08			
<b>Carried over</b>	...	...	260'76	247'94		

## APPENDIX 38—contd.

Appendix 38.  
History of railways.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

## History of railways constructed and in progress.

[ For Index see page 168.]

Number <sup>Main head 12</sup> <sub>Sub-heads (a) to (c)</sub> BENGAL AND NORTH-WESTERN RAILWAY SYSTEM—contd.

12 (a) Bengal and North-Western railway proper (3' 3½" gauge)—contd.

Progress in opening—contd.

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Brought forward			260.76	247.94
<i>Turtipur branch—</i>				
Bhatni to Turtipur	10-1-95	15-12-96	17.14	
Salimpur to Barhaj		1-12-97	13.77	
			29.91	
<i>Ganges-Gogra Doab lines—</i>				
Turtipur to Mau	...	8-6-98	28.19	
Mau to Benares	...	15-3-99	53.06	
Mau to Azamgarh	...	8-6-98	27.15	
Kopaganj Road to Ballia	...	15-3-99	37.61	
Ballia to Chand-Dears Ghat	...	12-5-99	29.00	
Aunrihar to Ghazipur Ghat	...	15-3-99	23.37	
Azamgarh to Shahganj	15-4-01	14-2-03	34.81	
Ghazipur Ghat to Phephna	23-12-01	11-8-03	31.16	
			274.35	
Total Branches			...	565.02
TOTAL OPEN MILEAGE, BENGAL AND NORTH-WESTERN RAILWAY PROPER			...	812.96
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>				
<i>Ganges-Gogra Doab lines—</i>				
Kopaganj to Dohrihat	28-4-03	21-3-04	21.70	
Aunrihar to Jaunpur	1-11-02	21-3-04	36.14	
Uska Bazar to Tulsipur	31-3-03	...	53.54	
Gaisanri to Jarwa		...	12.56	
Gorakhpur to Bagaha		...	60.94	
Total Lines under construction			...	164.88
GRAND TOTAL, BENGAL AND NORTH-WESTERN RAILWAY			...	997.84

## Details of construction—

*Permanent-way.*—The main line between Sonapur and Burhwal is laid with 50 lb. steel rails on sal sleepers. The rest of the line north of the Gogra is laid with 41½ lb. steel rails mostly on sal sleepers. The Ganges-Gogra Doab lines, with the exception of the Aunrihar-Ballia branch, which is laid with 50 lb. steel rails, is laid with 41½ lb. steel rails on sal sleepers.

*Ballast.*—The line is ballasted throughout.

*Bridges.*—See appendix 36.

*Fencing.*—The line was originally unfenced except in front of villages and at level crossings and near stations, but the main line is in course of being fenced, and about 200 miles have been done.

*Curves.*—There is only one curve with a radius of less than 1,000 feet, viz., at Paleza Ghat on the loop line, the length of which is 2,000 feet and radius 900 feet.

*Gradients.*—The ruling gradient is 1 in 300. On the various ghat lines the gradients are steeper and these vary from time to time during the year according to circumstances.

## Terms of contracts—

The Bengal and North-Western and Tirhoot State railways are worked under the following contracts:—

*Contracts of—*12th December 1882.—Bengal and North-Western Railway Company's principal contract.

22nd February 1886.—Contract modifying that of 1882.

18th July 1890.—Contract for the taking over and working of the Tirhoot State railway.

19th December 1894.—Contract supplemental to those of 1882, 1886 and 1890, providing for the Revelganj, Bahramghat, Burhwal, Tulsipur, Katarnian Ghat and Turtipur branches of the Company's railway and for the exercise of running powers over the Cawnpore-Burhwal (3' 3½" gauge) link.

12th December 1895.—Contract modifying that of 1890.

23rd July 1896.—Contract supplemental to those of 1882, 1886, 1890, 1894 and 1895, known as the Ganges-Gogra Doab contract, for the Ganges-Gogra Doab lines of the Company's railway.

15th January 1903.—Supplemental contract for the Ghazipur-Ballia, Azamgarh-Shahganj and Aunrihar-Jaunpur lines.

The general conditions of the contracts are as follows:—

*Government aid.*—Land alone was provided free of charge.

Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1903.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 12</sup> <sub>Sub-heads (a) to (c)</sub>. BENGAL AND NORTH-WESTERN RAILWAY SYSTEM—*contd.*12 (a) Bengal and North-Western railway proper (3' 3½" gauge)—*concl'd.*Terms of contracts—*concl'd.*

*Currency of contracts.*—(1) *Bengal and North-Western railway contract.*—The contracts of 1882, 1886 and 1894, *viz.*, those for the working of the Bengal and North-Western railway proper are current for a period of 99 years and terminate by effluxion of time on the 31st December 1981, when the line and all its appurtenances become the property of Government by payment to the Company of the value of the rolling-stock, moveable machinery, stores, etc. Government may, however, determine the contract after 30 years (*i.e.*, on the 31st December 1912) or 50 years (*i.e.*, on the 31st December 1932) on one year's previous notice of intention to purchase, paying 25 times the average net earnings (after deducting from such net earnings the share of surplus profits over 6 per cent. to which Government would have been entitled under the contract of 12th December 1882) for the five years preceding the purchase. Government may also determine the contract at any time, at six months' notice if the Company fail to observe their obligations, on paying the value of rolling-stock, stores, etc., and fair value of line, less value of same treated as a reversionary sum absolutely payable on the 31st December 1981.

(2) *Ganges-Gogra Doab contract.*—The contract of 1896, *viz.*, that covering the Ganges-Gogra Doab lines runs concurrently with those of 1882, 1886 and 1894, as does also the supplemental contract of 1903, but in the event of Government exercising the right of purchase in 1912 or 1932, the amount to be paid is the actual outlay on the line as shown in sterling only, without any premium.

(3) *Tirhoot State railway contract.*—The contract of 1890, *viz.*, that for working the Tirhoot State railway, terminates on the 31st December 1904. If the original contract with the Company, dated the 12th December 1882, terminates for any reason prior to the expiry of the term of the Tirhoot contract, the latter also, *ipso facto*, terminates at the same time. Government may also terminate the contract at any time after six months' notice, if the Company fail to observe their obligations. On the determination of the contract, Government resumes possession of the State railway. Any capital sums which may have been raised by Government, and expended on the Company's lines, or which may have been raised and expended by the Company on the State railway, shall be considered as debt due from the Company and Government, respectively.

*Power of Company to surrender contracts.*—Nil.

*Terms of working.*—The Company's railway and the Tirhoot State railway are worked as one concern, a joint account of working expenses (which may include any single item of capital expenditure, not exceeding Rs. 1,000 classed as a 'Minor Work,' subject to a maximum charge on such account of Rs. 15 per mile of the open system in each half-year, and payment of Rs. 20 for every mile of line open to traffic to be made half-yearly to Government for supervision) and net earnings being kept, the latter being applied in the order stated—

In payment of any further contribution (beyond that chargeable to working expenses) to the Company's Provident Institution;

In payment of interest at 4 per cent. on Rs. 5,79,74,904, being the capital raised and expended by the Company;

In payment of interest at 4 per cent. on Rs. 4,79,85,871, being the capital supplied by Government; and

In payment of the residue to Government and the Company in the ratio of their respective shares of capital, subject to the further payment to the Company of 5 per cent. of the Government's share of the residue as compensation for working the Tirhoot State railway for Government.

*Rates and fares.*—On the Company's section, the Company may, with the approval of Government, fix rates and fares. On the Tirhoot section, certain maxima and minima have been fixed within which the Company are permitted to vary rates.

Statistics of working—

Calendar year.	TABLE I.					TABLE II.		
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Payments received for working the Tirhoot State railway.	Total income.	Percentage on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.	Rs.	Rs.		Rs.	
1884 . . . . .	1,52,47,428	77,670	Information not available.	Information not available.	—26,221		29	193.76
1885 . . . . .	2,01,86,980	17,05,320			6,10,739	3.03	72	49.32
1886 . . . . .	2,36,16,102	18,54,074			8,09,189	3.43	106	56.86
1887 . . . . .	2,56,24,684	19,44,002			8,37,004	3.27	90	56.94
1888 . . . . .	2,61,51,593	22,09,553			9,89,844	3.78	102	55.25
1889 . . . . .	2,63,41,872	22,11,824			10,53,964	4.00	103	52.35
1890 . . . . .	2,57,94,904	22,18,615			12,32,397	4.86	121	44.08
1891 . . . . .	2,78,68,842	24,76,909	15,54,509	69,484	16,23,993	5.87	121	40.04
1892 . . . . .	2,83,88,821	29,39,077	16,34,194	67,060	17,01,254	5.99	120	41.12
1893 . . . . .	2,84,84,234	26,14,546	15,81,860	66,842	16,48,702	5.79	123	43.20
1894 . . . . .	2,87,24,887	26,17,242	16,95,265	72,358	17,67,623	6.15	130	41.79
1895 . . . . .	3,12,95,704	25,71,036	16,82,768	72,909	17,55,475	5.61	133	42.45
1896 . . . . .	3,48,36,114	26,26,033	16,70,172	71,614	17,41,786	5.07	134	43.97
1897 . . . . .	4,10,32,207	27,55,718	17,24,277	74,905	17,98,182	4.38	128	43.78
1898 . . . . .	4,68,78,622	33,31,890	19,74,920	75,885	20,50,605	4.39	129	43.37
1899 . . . . .	5,16,06,763	43,44,881	26,70,911	61,940	27,32,851	5.30	131	46.07
1900 . . . . .	5,24,73,019	44,56,593	24,79,433	49,563	25,28,996	4.82	126	49.56
1901 . . . . .	5,50,91,830	53,86,794	30,97,872	70,853	31,74,225	5.76	140	44.51
1902 . . . . .	5,84,82,525	55,60,238	29,72,183	76,671	30,40,854	5.21	154	46.32
1903 . . . . .	6,21,09,547	61,93,433	38,53,972	1,04,369	30,58,341	6.47	161	40.64

\* Includes the Tirhoot State railway from 1890.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number Main head 12  
Sub-heads (a) to (c), BENGAL AND NORTH-WESTERN RAILWAY SYSTEM—*contd.*

## 12 (b) Sagauli-Raxaul railway (3' 3½" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Sagauli to Raxaul . . . . .	...	1-3-99	18.09	18.09

## Details of construction—

*Permanent-way.*—The permanent-way consists of 41½ lb. steel rails on sal sleepers.*Ballast.*—The line is ballasted throughout.*Fencing.*—The line is unfenced.*Curves.*—There are no curves with a radius of less than 1,000 feet.*Gradients.*—The ruling gradient is 1 in 800.

## Terms of contracts—

The railway is worked under the following contracts:—

*Contracts of*—31st October 1896 (between the Secretary of State and the Sagauli-Raxaul Railway Company) for construction and working.

5th June 1899 (between the Secretary of State and the Bengal and North-Western Railway Company) for maintenance and working.

The general conditions of the contracts are as follows:—

*Government aid.*—Land alone was provided free of charge.*Currency of contract.*—Government may determine the contract either on the 31st December 1917 or on the 31st December in the last year of any subsequent period of 10 years, paying 25 times the average net earnings for the three years preceding the purchase.*Power of Company to surrender contract.*—Nil.*Terms of working.*—Forty per cent. of the gross earnings to be retained by the Bengal and North-Western Railway Company for working and maintenance (which may include any single item of capital expenditure not exceeding Rs. 200 classed as a 'Minor Work,' subject to a maximum charge on such account of Rs. 20 per mile of line open in each half-year) and 10 per cent. for supervision on the cost of Government works at Sagauli. The balance is payable to the branch Company.*NOTE.*—Pending the completion of the line and works to the standard contemplated under the terms of the contract of 1896, the line is being worked under a provisional agreement approved in Government of India letter No. 164 E. C. of the 18th February 1899. Under this agreement maintenance charges are excluded from the 40 per cent. retained by the working agency and borne by the Company.*Rates and fares.*—To be arranged between Government and the Company within the maxima and minima in force on the Tirhoot section.

## Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1896 . . . . .	1,26,014	...	...	...	...	...
1897 . . . . .	6,68,793	...	...	...	...	...
1898 . . . . .	8,07,550	...	...	...	...	...
1899 . . . . .	10,81,740	5,423	*	...	30	40.00
1900 . . . . .	12,12,078	25,830	*	...	30	52.62
1901 . . . . .	10,67,014	37,182	13,593	1.27	40	63.44
1902 . . . . .	10,73,421	39,296	18,638	1.74	42	52.57
1903 . . . . .	11,16,252	43,809	18,571	1.66	51	57.61

\* Credited to interest on capital.

Appendix 38.  
History of railways.

APPENDIX 38—contd.  
[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 168.]

Number Main head 12 BENGAL AND NORTH-WESTERN RAILWAY SYSTEM—contd.  
Sub-heads (a) to (c)

12 (c) Tirhoot State railway—(3' 3 1/2" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
<b>Main line—</b>						
Semaria Ghat to Dalsinghsarai . . . . .	3-2-82	1-5-83	22.55		1875	36
Dalsinghsarai to Samastipur . . . . .	Feb. 1874	1-11-75	14.75			
Samastipur to Muzufferpur . . . . .	6-1-76	24-2-77	29.79		1876	36
Muzufferpur to Motiharee . . . . .	8-7-80	1-2-83	49.57			
Motiharee to Bettiah . . . . .		20-12-83	27.00		1877	68
Samastipur to Durbhanga . . . . .	Feb. 1874	1-11-75	23.00			
Durbhanga to Jhanjharpur . . . . .	8-7-80	1-2-83	24.00		1878	68
Jhanjharpur to Ghoghardiha . . . . .	19-10-83	8-4-86	13.00			
Ghoghardiha to Nirmala . . . . .	16-2-85	8-4-86	6.92		1879	85
Nirmala to Bhaptiahi . . . . .		15-11-87	10.00			
Bhaptiahi to Pratappanj . . . . .		1-10-88	14.00		1880	85
Pratappanj to Khandwa Ghat . . . . .		14-11-90	8.00			
<b>Total Main line</b>				242.58	1881	85
<b>Branches—</b>					1882	85
<b>Bairagnia branch—</b>						
Durbhanga to Sitamarhi . . . . .		1-7-90	42.00		1883	193
Sitamarhi to Riga . . . . .		1-1-91	6.00			
Riga to Dheng . . . . .		1-7-91	9.00		1884	226
Dheng to Bairagnia (fair weather line) . . . . .	23-10-91	1-3-92	3.51			
			60.51		1885	236
<b>Sonepore branch—</b>						
Muzufferpur to Hajipur . . . . .	6-2-83	26-10-84	31.25		1886	246
Hajipur to Sonepore . . . . .	19-10-83	1-8-87	3.66			
			34.61		1887	259
<b>Hajipur branch—</b>					1888	275
Hajipur to Hajipur Ghat . . . . .		26-10-84	1.89		1889	273
Hajipur branch loop line . . . . .		2-11-90	3.31			
			5.20		1890	323
<b>Hajipur-Katihar extension—</b>					1891	337
Hajipur to Baghwara . . . . .		1-4-90	44.46		1892	342
Barauni Junction to Thana Bihpur . . . . .		1-3-90	66.17			
Thana Bihpur to Katareah . . . . .		7-3-91	17.50		1893	342
Katareah to Kursela (Kosi bridge and approaches) . . . . .		10-7-92	3.75			
Kursela to Katihar . . . . .		7-8-91	28.75		1894	342
<b>Bhagalpur branch—</b>			155.63		1895	342
Thana Bihpur to Barari Ghat . . . . .		16-12-91	11.36		1896	342
					1897	342
<b>Monghyr branch—</b>					1898	342
Sahabpore Kamal to Monghyr Ghat . . . . .		7-3-90	7.00			
<b>Total Branches</b>				274.31	1899	342
					1900	363
<b>TOTAL OPEN MILEAGE, TIRHOOT STATE RAILWAY</b>				516.89	1901	519
					1902	517
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>					1903	517
Sakri to Jainagar . . . . .	1-6-99		30.47			
Bettiah to Bagaha . . . . .			49.35			
Bairagnia to Shikarpur . . . . .			21.50			
Shikarpur to Bikhathoree . . . . .	23-9-98		58.05			
Mansi to Baptsiahi . . . . .			60.37			
Sihursa to Murliganj . . . . .			18.61			
<b>Total Lines under construction, Tirhoot State railway</b>				238.35		
<b>GRAND TOTAL, TIRHOOT STATE RAILWAY</b>				755.24		

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[ For Index see page 168.]

Number <sup>Main head 12</sup> <sub>Sub-heads (a) to (c)</sub>, BENGAL AND NORTH-WESTERN RAILWAY SYSTEM—concl'd.

12 (c) Tirhoot State railway (3' 3½" gauge)—concl'd.

## Details of construction—

*Permanent-way.*—The sections between Sonapore and Muzaffarpur and Muzaffarpur and Barauni, which were originally laid with 41½ lb. steel rails, have been relaid with 50 lb. steel rails on sal sleepers. The section between Samastipur and Durbhanga which was originally laid with 41½ lb. steel rails has also partly been relaid with 50 lb. steel rails. There are still about 15 miles of 41½ lb. rails on this section. The remainder of the line is laid partly with 41½ lb. steel rails and partly with 50 lb. iron rails, the latter being entirely on the Bairagnia branch. The 50 lb. iron rails are laid on sal sleepers, and the remainder partly on sal and pyinkado and partly on Denham-Olphert's iron sleepers. The Hajipur-Katihar extension is laid with 50 lb. steel rails on sal and pyinkado sleepers.

*Ballast.*—The line is ballasted throughout.

*Bridges.*—See appendix 36.

*Fencing.*—Excluding the Hajipur-Katihar extension, the line is fenced throughout. On the Hajipur-Katihar extension the section between Hajipur and Khagaria is being fenced, but between Khagaria and Kursela it is unfenced.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 300, except between Samastipur and Khanwa Ghat on which 3.42 miles are on a gradient of 1 in 200. On various river ghat lines the gradients are steeper and vary from time to time during the year according to circumstances.

*Terms of contracts.*—See under Bengal and North-Western railway proper, pages 249 and 250.

## Statistics of working—

TABLE I.									TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Payment made to the Bengal and North-Western Railway Company for working the line.	Total income.	Percentage of total income on capital outlay.	Interest.	Gain or loss to the State.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	
1875	...	...	...	...	...	...	...	...	39	107.62
1876	...	...	...	...	...	...	...	...	71	68.67
1877	...	...	...	...	...	...	...	...	77	69.85
1878	...	...	...	...	...	...	...	...	108	75.34
1879	53,98,320	4,58,733	Information not available.	Information not available.	1,07,819	2.02	2,37,411	-1,29,592	113	76.49
1880	56,18,274	5,51,068	Information not available.	Information not available.	2,93,662	4.16	2,50,679	-16,997	102	56.40
1881	72,02,917	5,84,255	Information not available.	Information not available.	2,36,200	3.28	2,67,245	-31,045	110	59.57
1882	1,07,92,877	6,60,022	Information not available.	Information not available.	2,51,047	2.38	8,66,612	-1,32,565	176	61.50
1883	1,32,33,024	8,92,441	Information not available.	Information not available.	2,59,705	1.96	4,99,014	-2,39,309	103	70.90
1884	1,48,64,982	11,80,072	Information not available.	Information not available.	2,66,582	1.79	5,74,369	-3,07,787	105	77.60
1885	1,44,47,916	12,78,634	Information not available.	Information not available.	3,59,269	2.49	5,86,195	-2,26,926	98	71.90
1886	1,54,38,549	14,98,638	Information not available.	Information not available.	5,01,189	3.25	6,30,944	-1,29,755	109	66.56
1887	1,97,49,195	17,22,955	Information not available.	Information not available.	6,95,725	3.52	7,78,801	-84,076	122	59.62
1888	2,07,78,252	18,07,283	Information not available.	Information not available.	7,98,875	3.85	8,17,485	-18,610	123	55.20
1889	2,12,28,084	18,96,674	Information not available.	Information not available.	9,78,246	4.61	8,41,932	+1,36,314	122	48.42
1890	2,29,94,165	23,02,977	14,23,332	69,494	13,21,797	5.75	9,41,207	+3,80,590	*	*
1891	2,34,99,148	24,89,379	13,82,875	67,000	13,53,848	5.76	9,34,585	+4,19,463	...	...
1892	2,43,25,804	21,84,862	14,09,975	66,842	13,15,915	5.41	9,50,025	+3,65,790	...	...
1893	2,49,08,833	26,81,190	15,95,581	72,358	13,43,139	5.89	10,01,205	+3,41,933	...	...
1894	2,50,08,061	29,42,305	15,61,276	72,909	14,63,223	5.85	9,93,389	+4,64,835	...	...
1895	2,56,02,092	30,89,644	15,56,944	71,614	14,88,967	5.81	10,18,013	+4,70,354	...	...
1896	2,60,38,655	31,61,172	16,29,812	74,905	14,85,330	5.70	10,27,821	+4,57,509	...	...
1897	3,11,00,098	32,38,109	16,67,068	75,885	15,51,907	5.00	10,34,630	+5,16,277	...	...
1898	3,46,43,176	31,14,140	14,42,101	61,940	15,91,183	4.59	13,18,764	+2,72,119	...	...
1899	3,60,27,533	34,24,808	15,66,413	49,563	13,60,161	3.63	14,62,603	†-82,442	...	...
1900	4,30,15,249	36,47,197	22,75,660	76,853	15,16,850	3.53	16,19,231	‡-1,02,381	...	...
1901	4,61,91,293	43,16,760	24,55,201	76,671	21,98,607	4.76	17,67,799	§+4,31,008	...	...
1902	4,91,41,200	45,50,632	31,92,619	1,04,369	23,78,530	4.84	18,77,505	+5,01,325	...	...
1903	5,08,63,468	56,72,952	...	...	30,88,250	6.07	19,89,515	+11,01,735	...	...

\* Included with the Bengal and North-Western railway from 1890.

† The loss in 1899 was due to damages by flood and temporary stoppage of traffic.

‡ The loss in 1900 was due to the inclusion of the capital outlay on the Hajipur-Katihar extension, only a portion of which was opened in 1900.

§ The gain in 1901 was due to the completion of the Hajipur-Katihar extension.



**Appendix 38.**  
History of railways.

**APPENDIX 38—contd.**

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168].

Number <sup>Main head 13</sup> <sub>Sub-heads (a) and (b).</sub> **BENGAL DOOARS RAILWAY SYSTEM.**

Lines comprising system—The Bengal Dooars railway system is made up of—

	Open line Miles
(a) Bengal Dooars railway (3' 3½" gauge) . . . . .	36.40
(b) Bengal Dooars extensions (3' 3½" gauge) . . . . .	116.56
	Total . . . . . 152.96

The lines were constructed for opening out the Western Dooars and for the development of the tea industry.

**13 (a) Bengal Dooars railway proper (3' 3½" gauge).**

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
<b>Main line—</b>				
East Bank of the Teesta to Dam Dim . . . . .	May 1891	15-1-93	31.00	31.00
<b>Branch—</b>				
Letaguri to Ramshaihat . . . . .	May 1891	11-5-98	5.40	5.40
<b>TOTAL</b>	...	...	...	36.40

**Details of construction—**

*Permanent-way.*—The line has been laid with 41½ lb. flat-footed steel rails on sal sleepers.

*Ballast.*—The line is ballasted throughout with stone.

*Fencing.*—The line is unfenced

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 1,000.

**Terms of contracts—**

The Bengal Dooars railway and the extensions are worked under the following contracts :—

*Contracts of.*—27th April 1891.—Bengal Dooars railway principal contract.

2nd March 1898.—Contract supplemental to that of 1891 (for extensions).

27th September 1900.—Supplemental to that of 1898 (extending period of completion of Dam Dim-Bagrakote extension).

7th November 1901.—Supplemental to those of 1898 and 1900 (extending period for completion of Malbazar-Hantupara extension).

The general conditions of the contracts are as follows :—

*Government aid.*—Land free of cost from Government, and from the District Board of Jalpaiguri, an annual subsidy of such amount not exceeding Rs. 4,000 per annum as may be required to make up the net profits of the undertaking to five per cent. per annum on the capital outlay.

*Currency of contracts.*—On the 31st December 1919, and thereafter at intervals of seven years, Government have power, by giving twelve months' previous notice, to terminate the contract and take over the line on payment to the Company in the case of the Bengal Dooars railway of one and two-fifths of the invested capital and capital liabilities, and in the case of the extensions of a sum equal to 25 times the average net earnings during the last preceding five years, but not exceeding by more than 20 per cent. the capital expenditure and capital liabilities of the Company and not less than the capital expended and the capital liabilities. If at any period the Bengal Dooars railway or the extensions should not be worked for six consecutive months, the Company can also be called upon to surrender the line and extensions on receipt of the actual sum expended up to the date of notice.

*Terms of working.*—If worked by the Company, the whole of the profits go to the Company. If worked by the Eastern Bengal State railway, the Secretary of State retains each half-year 40 per cent. of the gross earnings, the remaining 60 per cent. being paid to the Company after deduction of income-tax payable to Government.

**Rates and fares—**

*Bengal Dooars railway and extensions from Mal to Madari Hat and Dam Dim to Bagrakote.*—

Certain maxima and minima have been fixed subject to alteration from time to time. If gross receipts reach 12 per cent. on capital, Government may reduce maxima to the extent of 25 per cent. except certain special rates.

*Extension from Barnes Junction to Lalmonir Hat—*

Certain maxima and minima have been fixed within which charges can be made.

**APPENDIX 38—contd.**  
[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

**Appendix 38.**  
**History of railways.**

*History of railways constructed and in progress.*

[For Index see page 168].

Number <sup>Main head 13</sup> <sub>Sub-heads (a) and (b).</sub> **BENGAL DOOARS RAILWAY SYSTEM—contd.**

**13 (a) Bengal Dooars railway proper (3' 3½" gauge)—concl'd.**

Statistics of working—

Calendar year.	TABLE I.							TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage on capital outlay.	Subsidy from District Board.	Total income.	Percentage of total income on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	
1891	16,479	...	...	...	...	...	...	...	...
1892	12,87,626	...	...	...	...	...	...	...	...
1893	18,49,091	1,14,812	57,639	3.12	...	57,639	3.12	69	49.80
1894	22,94,324	2,05,286	1,04,291	4.57	4,000	1,44,291	6.32	109	49.20
1895	23,26,476	3,58,537	1,37,459	5.43	4,000	1,31,458	5.65	125	49.73
1896	24,33,213	2,71,450	1,31,818	5.42	...	1,31,818	5.42	136	51.26
1897	26,50,713	2,86,407	1,45,259	5.48	...	1,45,259	5.48	145	49.27
1898	26,68,050	2,68,089	1,10,820	4.15	4,000	1,14,820	4.80	135	57.40
1899	26,26,749	2,78,087	1,18,416	4.51	...	1,18,416	4.51	137	55.41
1900	26,42,695	3,32,739	1,89,461	7.17	...	1,89,461	7.17	168	43.06
1901	26,44,873	3,10,920	1,76,399	6.67	...	1,76,399	6.67	156	43.27
1902	26,50,637	2,73,840	1,71,455	6.47	...	1,71,455	6.47	144	37.27
1903	27,95,547	3,09,965	2,23,786	8.30	...	2,23,786	8.30	156	27.80

**13 (b) Bengal Dooars railway extensions. (3' 3½" gauge)—**

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
<b>Main line—</b>						
<b>Eastern extension—</b>						
Mal to Chalsa		1-4-01	5.40		1900	66
Chalsa to Chengmari*		1-1-03	13.45		1901	74
Chengmari to Dalgaon*		23-8-03	15.84		1902	78
Dalgaon to Madari Hat*		*14-6-03	9.31		1903	116
			44.00			
<b>Southern extension—</b>						
Barnes junction to Baura	2-3-98	20-4-00	22.30			
Baura to Bhotemari		21-10-00	16.70			
Bhotemari to Lalmonir Hat		20-11-00	20.80			
			65.80			
<b>Western extension—</b>						
Dam Dim to Oodlabari		1-5-01	3.30			
Oodlabari to Bagrakote		1-1-02	3.46			
			6.76			
<b>TOTAL</b>	...	...	...	116.56		

Details of construction—

**Permanent-way.**—The line has been laid with 41½ lb. flat footed steel rails on sal sleepers.

**Ballast.**—The line is ballasted throughout with stone.

**Fencing.**—The line is unfenced.

**Curves.**—There are two curves with a radius of 955 feet. One is 0.03 mile in length and the other 0.25 mile.

**Gradients.**—The ruling gradient of the Eastern extension is 1 in 200 and that of the Western extension, 1 in 100.

**Terms of contracts.**—See under Bengal-Dooars railway proper, page 254.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on Capital outlay.	Earnings per mile per week	Proportion of expenditure to earnings.
	Rs.	Rs.	Rs.		Rs.	
1897	72,151	...	...	...	...	...
1898	4,03,611	...	...	...	...	...
1899	26,75,455	...	...	...	...	...
1899	47,11,632	16,191	5,015	0.11	13	72.31
1900	62,26,567	1,76,399	68,937	1.11	47	69.92
1901	72,66,166	2,53,634	86,268	1.19	62	65.99
1902	79,30,172	3,47,832	1,05,916	1.34	71	69.55

\* Closed to traffic owing to breaches by floods from 25th June 1903 and reopened—Chalsa to Chengmari, 23rd October 1903 and Chengmari to Madari Hat, 16th November 1903.

## Appendix 38. History of railways.

## APPENDIX 38—contd. [Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

### History of railways constructed and in progress.

[For Index see page 168].

#### Number Main head 14. **BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY SYSTEM.** Sub-heads (a) to (d).

Lines comprising system.—The Bhavnagar-Gondal-Junagad-Porbandar railway system is made up of—

	Open line, Miles.
(a) Bhavnagar-Gondal-Junagad-Porbandar railway (3' 3½" gauge)	334.19
(b) Dhrangadra railway (3' 3½" gauge)	20.83
(c) Jamnagar railway (3' 3½" gauge)	54.22
(d) Jetalsar-Rajkot railway (3' 3½" gauge)	46.21
<b>Total</b>	<b>455.45</b>

#### 14 (a) Bhavnagar-Gondal-Junagad-Porbandar railway proper (3' 3½" gauge).

##### Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Bhavnagar to Wadhwan	19-3-79	20-12-80	*105.03		1880	105
Dhola to Dhoraji†	19-3-79	19-1-81	83.89		1881	} 194
Dhoraji to Porbandar	24-1-88	17-12-89	69.07		to 1887	
Porbandar to Porbandar Bandar		15-3-90	† 1.55		1888	210
Jetalsar to Junagad	24-12-86	1-9-88	16.00		1889	332
Junagad to Veraval (including Junagad quarry line)		1-2-89	† 53.35		1890	} 334
Veraval to Veraval Bandar		1-12-90	‡ 10.30		to 1903	
<b>Total</b>	...	...	...	<b>334.19</b>		

##### Details of construction—

*Permanent-way.*—The permanent-way consists of 41½ lb. flat-footed steel rails laid on creosoted pine and deodar sleepers, except on the Dhoraji-Porbandar section where the rails are laid on steel traverse sleepers.

*Ballast.*—The line is ballasted with a good quality of broken stone with the exception of one or two short lengths ballasted with kuukor.

*Fencing.*—The line is practically unfenced.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 200 except on the Jetalsar-Veraval section, where it is 1 in 150.

##### Terms of contracts—

The Bhavnagar-Gondal-Junagad-Porbandar railway system is worked under the following agreements:—

*Agreements of—*1st January 1897.—For the management and working of the "Integral railways" as one system by a Board of Control.

1st June 1898—Dhrangadra railway—	} For management and working by the Bhavnagar-Gondal-Junagad-Porbandar Railway Administration.
8th April 1897—Jamnagar railway—	
12th April 1893—Jetalsar-Rajkot railway—	

The general conditions of the agreements are as follows:—

*Government aid.*—Nil.

*Terms of agreement.*—The whole system is worked by a Board of Control, consisting of one nominee of Government to be President, and one nominee from each of the proprietary states of Bhavnagar, Gondal, Junagad and Porbandar. The existing lines owned by those states are separately and entirely described as the "Integral railway" and their combination is termed the "Open system." The decisions of the Board of Control are based on the majority of votes recorded ("Members' single votes" and "Proprietary votes"). "Members' single votes" prevail at special meetings where each member has one vote, while "Proprietary votes," i.e., votes revised annually on varying capital outlay, prevail at ordinary and extraordinary meetings.

*Currency of agreement.*—The term of the principal agreement for the working of the Bhavnagar-Gondal-Junagad-Porbandar railway proper is from the 1st January 1897 to the 31st December 1900. Until a new agreement has been adopted, the terms of this agreement remain in force.

\* Of this, the Bhavnagar Dock estate line, 1.03 miles, is worked for goods traffic only.

† Worked for goods traffic only.

‡ Of this, the Junagad quarry line, 2.35 miles, is worked for goods traffic only.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 14</sup> <sub>Sub-heads (a) to (d)</sub> BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY SYSTEM—contd.14 (a) Bhavnagar-Gondal-Junagad-Porbandar railway proper (3' 3 $\frac{3}{8}$ " gauge)—concl'd.

Terms of contracts—concl'd.

*Power of Board to determine agreement.*—By unanimous vote, the Board of Control can cancel or modify any of the clauses of the agreement, and can also rescind or alter any resolution; no changes can otherwise be made until expiry of three months from date of passing such resolution. Any proprietary state can terminate the agreement after the 31st December 1900, subject to 12 months' notice at the beginning of the year.

*Terms of working.*—Bhavnagar-Gondal-Junagad-Porbandar railway.—The earnings of the several integral railways belong wholly and exclusively to each integral railway, and, similarly, the Capital and Revenue expenditure is wholly borne by the same. All expenditure on the open system and on the integral railways, as may require apportionment, is divisible as prescribed in Appendix A to the agreement. The Bhavnagar State provides funds for working the whole system as well as for ordinary capital on the integral railways, all receipts of the entire open system being paid into the Bhavnagar State Treasury. All funds for major capital works are provided by the integral railway concerned or by special arrangement with the Bhavnagar State Treasury. Each integral railway is the sole proprietor of all works, buildings, etc., on its own length of line and is entitled to 7 $\frac{1}{2}$  per cent. interest on the paid-up value of all property in occupancy for open system purposes, to compensation for losses for works and buildings falling into disuse and to 7 $\frac{1}{2}$  per cent. per annum for any additional accommodation required by the open system.

Dhrangadra railway—  
Jamnagar railway—  
Jetalsar-Rajkot railway—

{ The Board of Control work the railways at 40 per cent. of gross earnings of each railway plus actual expenditure incurred on the maintenance of way, works and stations; and supply rolling-stock at 5 per cent. of gross earnings to the Jetalsar-Rajkot and Dhrangadra railways.

*Rates and Fares.*—The maximum scale of rates and fares sanctioned by Government is applicable to the whole system, but rates and fares may be altered within this scale so as to accommodate them to the circumstances of traffic on any integral railway: provided that such alteration be not prejudicial to the interests of any other integral railway.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1879	4,80,177	...	...	...	...	...
1880	49,19,304	...	...	...	...	...
1881	74,46,358	6,88,885	2,31,706	3.11	78	70.18
1882	86,75,711	8,76,836	3,54,648	4.09	87	59.55
1883	90,49,232	8,94,179	3,26,513	3.61	89	63.47
1884	92,92,040	10,92,312	4,98,107	5.36	109	54.46
1885	96,25,031	10,04,660	3,91,247	4.07	98	59.55
1886	98,57,553	9,65,379	4,15,149	4.21	96	57.00
1887	1,08,28,023	9,80,827	4,42,103	4.08	98	54.93
1888	1,30,68,668	11,20,260	5,06,545	3.88	109	50.53
1889	1,62,60,477	13,80,417	7,04,177	4.33	97	56.55
1890	1,68,42,051	15,71,788	6,00,267	3.56	91	61.81
1891	1,71,24,771	14,77,263	4,75,786	2.78	85	67.79
1892	1,72,52,030	15,78,178	4,37,876	2.54	91	72.25
1893	1,72,28,860	20,63,104	8,83,708	5.16	119	56.92
1894	1,73,65,592	18,40,287	7,91,335	4.56	106	49.61
1895	1,76,00,032	19,52,221	8,21,220	4.67	113	57.93
1896	1,75,68,395	19,80,878	9,89,274	5.63	114	50.06
1897	1,76,58,652	19,21,640	8,19,081	4.64	105	55.04
1898	1,78,56,546	16,98,657	7,09,781	3.98	97	58.22
1899	1,79,56,272	18,53,433	9,26,935	5.16	107	49.99
1900	1,80,00,616	19,53,865	10,10,773	5.62	113	48.27
1901	1,80,96,671	15,37,378	6,80,089	3.76	89	55.76
1902	1,80,87,538	13,71,837	5,66,342	3.13	79	58.72
1903	1,81,53,314	16,04,638	8,36,670	4.61	92	47.86

Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number  $\frac{\text{Main head 14}}{\text{Sub-heads (a) to (d)}}$  BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY SYSTEM—*contd.*

## 14 (b) Dhrangadra railway (3' 3½" gauge).—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Wadhwan Junction to Dhrangadra . . . . .	23-12-97	1-6-98	20·83	20·83

## Details of construction—

*Permanent-way.*—The permanent-way consists of 41½ lb. flat-footed steel rails laid on deodar sleepers.

*Ballast.*—The ballast used is of broken hard sand-stone.

*Fencing.*—The line is unfenced.

*Curves.*—There are no curves with a radius less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 200.

*Terms of contracts.*—See under Bhavnagar-Gondal-Junagad-Porbandar railway proper, pages 256 and 257.

## Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1897 . . . . .	5,830	...	...	...	...	...
1898 . . . . .	5,98,589	23,395	10,617	1·79	37	54·62
1899 . . . . .	6,06,104	63,876	20,978	3·46	59	67·16
1900 . . . . .	5,86,584	57,366	18,984	3·24	53	66·91
1901 . . . . .	5,86,100	46,196	11,765	2·01	43	74·53
1902 . . . . .	5,85,911	37,731	8,075	1·38	85	78·60
1903 . . . . .	5,86,638	43,058	11,713	1·99	40	72·80

## 14 (c) Jamnagar railway (3' 3½" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Rajkot Junction to Bedi Bandar . . . . .	Oct. 1893	8-4-97	54·22	54·22

## Details of construction—

*Permanent-way.*—The permanent-way consists of 41½ lb. flat-footed steel rails laid on creosoted pine and deodar sleepers.

*Ballast.*—The ballast used is of broken stone.

*Fencing.*—The line is unfenced except at the approaches to the Victoria bridge near Jamnagar and the south side of the Jamnagar station yard.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 200.

\* Of this, the Bedi Bandar Dock estate line, 3·98 miles, is worked for goods traffic only.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number Main head 14. Sub-heads (a) to (d) **BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY SYSTEM—concl'd.**

14 (c) Jamnagar railway (3' 3½" gauge)—concl'd.

Terms of contracts—See under Bhavnagar-Gondal-Junagad-Porbandar railway proper, pages 256 and 257.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1894	17,000	...	...	...	...	...
1895	62,956	...	...	...	...	...
1896	14,91,727	...	...	...	...	...
1897	22,50,533	84,476	28,954	1.29	41	65.73
1898	23,18,496	1,02,945	31,782	1.37	36	69.12
1899	23,08,558	1,26,323	51,540	2.23	83	59.20
1900	23,09,481	1,49,153	59,540	2.58	53	60.09
1901	23,09,969	1,36,314	51,401	2.22	48	62.29
1902	23,58,240	1,31,104	53,751	2.28	46	59.00
1903	23,58,338	1,39,756	60,122	2.55	50	56.98

14 (d) Jetalsar-Rajkot railway (3' 3½" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Jetalsar Junction to Rajkot	Feb. 1892	12-4-93	46.21	46.21

Details of construction—

*Permanent-way.*—The permanent-way consists of 41½ lb. flat-footed steel rails laid on creosoted pine sleepers except for five miles where the rails are laid on steel trough sleepers.*Ballast.*—The ballast used is of broken stone.*Fencing.*—The line is unfenced except between Rajkot Para and Rajkot Junction.*Curves.*—There are no curves with a radius of less than 1,000 feet.*Gradients.*—The ruling gradient is 1 in 200.

Terms of contracts—See under Bhavnagar-Gondal-Junagad-Porbandar railway proper, pages 256 and 257.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1892	7,89,792	...	...	...	...	...
1893	14,35,593	1,03,006	50,896	3.55	59	50.59
1894	14,99,605	1,55,556	61,152	4.08	65	60.68
1895	15,03,585	1,33,338	77,448	5.15	76	57.76
1896	15,29,265	1,37,116	84,238	5.51	82	57.26
1897	15,47,463	2,05,253	84,720	5.47	85	58.72
1898	15,78,017	1,78,941	76,057	4.82	74	57.50
1899	15,83,208	1,98,927	78,726	4.97	45	60.43
1899	15,74,082	2,02,718	86,214	5.48	84	57.47
1900	15,74,033	1,76,383	67,251	4.27	73	61.87
1901	15,78,583	1,44,317	54,485	3.45	60	62.25
1902	15,78,658	1,66,404	63,230	4.01	69	62.00

Number Main head 15. Sub-head (a) **BURMA RAILWAYS (3' 3½" gauge)—**

The Burma Railway Company was formed in 1896 for the purpose of taking over the working of the then existing system of State railways (3' 3½" gauge) in Burma and extending it by the construction of other lines, particularly one from Mandalay to Kunlong. The railways taken over by the Company from Government on the 1st September 1896 comprised the following lines:—Rangoon to Prome on the Irrawaddy river; Rangoon to Mandalay, and thence to the bank of the Irrawaddy, opposite Sagaing; and Sagaing to Mogaung, with an extension to Myitkyina and a branch to Katha, whence there is communication by river with Bhamo.

Mileage	Open line. Miles.	Under construction. Miles.	Total. Miles.
	1,336.97	121.27	1,458.24

Appendix 38.  
History of railways.

APPENDIX 38—contd.  
[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.  
[For Index see page 168.]

Number Main head 15 Sub-head (a) BURMA RAILWAYS (3' 3 3/4" gauge)—contd.

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<b>IRRAWADDY SECTION—</b>			Miles.	Miles.		Miles.
Rangoon to Promé . . . . .	25-9-74	2-5-77	161-00		1877	161
<b>TOTAL, IRRAWADDY SECTION</b>	...	...	...	161-00	1878	161
					1879	161
					1880	167
					1891	167
<b>SITTANG SECTION—</b>					1892	167
<i>Main line—</i>					1893	167
Rangoon to Pegu . . . . .	23-5-81	4-2-84	46-25		1894	260
Pegu to Pyuntaza . . . . .		4-2-84	41-75		1895	333
Pyuntaza to Nyaunglebin . . . . .		4-2-84	5-00		1896	333
Nyaunglebin to Toungoo . . . . .		1-7-85	73-00			
<b>Total Main line</b>	...	...	166-00		1897	333
<i>Branches—</i>					1898	441
Suburban lines . . . . .	25-9-74	1-3-80	6-00		1899	553
		15-7-90	3-00		1900	556
<b>Total Branches</b>	...	...	9-00		1891	617
<b>TOTAL SITTANG SECTION</b>	...	...	...	175-00	1892	717
					1893	730
					1894	745
					1895	834
					1896	836
<b>MANDALAY SECTION—</b>					1897	837
<i>Main line—</i>					1898	936
Toungoo to Pyinmana . . . . .	October 1886.	1-5-88	53-00		1899	936
Pyinmana to Yamethin . . . . .		15-11-88	49-00		1900	1,124
Yamethin to Mandalay . . . . .		1-3-89	112-00		1901	1,178
<b>Total Main line</b>	...	...	220-00		1902	1,261
<i>Branches—</i>					1903	1,337
<i>Myingyan branch—</i>						
Thazi to Meiktila Cantonment . . . . .	1-1-92	10-5-93	12-89			
Meiktila to Myingyan . . . . .	Sept. 1898	15-11-99	57-21			
<b>Total Myingyan branch</b>	...	...	70-10			
<i>Mandalay Shore Branch—</i>						
Mandalay to Mandalay shore . . . . .	...	April 1889	2-50			
<b>Total Branches</b>	...	...	72-60			
<b>TOTAL, MANDALAY SECTION</b>	...	...	...	292-60		
<b>MU VALLEY SECTION—</b>						
<i>Main line—</i>						
Sagaing to Shwebo . . . . .	Sagaing to Kawlin 17-10-89; Kawlin to Nankan in Feb. and March 1891.	1-7-91	53-05			
Shwebo to Wuntho . . . . .		4-4-92	99-46			
Wuntho to Nankan . . . . .		1-11-94	15-46			
<b>Total Main line</b>	...	...	331-29			
<i>Branches—</i>						
Sagaing to Alon . . . . .	Sept. 1898	15-4-00	70-46			
<i>Myohaung branch—</i>						
Myohaung to Amarapura shore . . . . .	17-10-89	22-11-91	6-00			
<i>Katha branch—</i>						
Nabha to Katha . . . . .	...	2-10-95	15-00			
<b>Total Branches</b>	...	...	91-46			
<b>TOTAL, MU VALLEY SECTION</b>	...	...	...	422-75		
<b>MANDALAY-KUNLONG SECTION—</b>						
Myohaung to Sedaw . . . . .	Oct. 1895	1-1-98	13-45			
Sedaw to Maymyo . . . . .		1-4-00	28-10			
Maymyo to Nawngkhio . . . . .		20-5-00	34-10			
Nawngkhio to Hsipaw . . . . .		1-6-01	53-25			
Hsipaw to Lashio . . . . .		1-3-03	50-94			
<b>TOTAL, MANDALAY-KUNLONG SECTION</b>	...	...	...	177-84		
<b>Total, Carried over</b>	...	...	...	1,229-19		



## APPENDIX 38—contd.

[ Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 108.]

Number Main head 15  
Sub-head (a) **BURMA RAILWAYS (3' 3½" gauge)—contd.**  
Progress in opening—*conold.*

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
Brought forward				
BASSEIN-HENZADA-LETPADAN SECTION—	...	...	Miles.	Miles.
Bassein to Henzada	...	...	...	1,229.19
Henzada to Henzada shore	7-9-99	15-12-03	82.25	
Tharawaw branch—		20-3-03	2.46	
Letpadan (on Irrawaddy line) to Tharawaw on the east bank of the Irrawaddy river		20-3-03	23.07	
<b>TOTAL, BASSEIN-HENZADA-LETPADAN</b>	...	...	...	107.78
<b>TOTAL, OPEN MILEAGE</b>	...	...	...	1,336.97
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>				
Pegu to Martaban	27-11-03	...	121.27	
<b>TOTAL, LINES UNDER CONSTRUCTION</b>	...	...	...	121.27
<b>GRAND TOTAL, BURMA RAILWAYS</b>	...	...	...	1,458.24
<b>DOUBLE LINE—MAIN LINE AND BRANCHES—</b>				
Rangoon to Kemmandine	...	30-10-89	3.50	
Kemmandine to Insein	...	10-1-90	5.50	
Myohauug to Mandalay	...	3-10-99	2.45	
Rangoon to Pazundaung	...	1-6-01	0.70	
<b>Total double line</b>	...	...	12.15	

**Details of construction—**

**Permanent-way.**—The Irrawaddy line is laid with steel rails, 50 lb. to the yard, for a double track from Rangoon to Insein (9 miles), the remaining 152 miles being laid for a single track with 50 lb. steel rails for 115 miles, 41½ lb steel rails for 29 miles, and 40 lb. iron rails for 8 miles. The Sittang line is laid with steel rails, 50 lb. to the yard, from Pazundaung to Deiku (81 miles), the remaining 85 miles being laid with rails, 41½ lb. to the yard. The Mandalay line consists of 50 lb. flat-footed steel rails, with deep web fishplates of Bessemer steel. The Myingyan branch is laid with steel rails, 41½ and 50 lb. to the yard. The Mu Valley line is laid with 41½ lb. flat-footed steel rails, with the exception of the Alon branch, where the rails are mostly 50 lb. The Mandalay-Kunlong line and the Bassein-Henzada-Letpadan branch are laid with steel rails, 50 lb. to the yard. The sleepers throughout are generally of teak, pyinma and pyinkado, the last named largely predominating.

**Ballast.**—The ballast used is either shingle or broken stone.

**Bridges.**—See Appendix 36.

**Fencing.**—The main line (Rangoon to Mandalay) and the Irrawaddy line (Rangoon to Prome) are fenced. The Mu Valley line is generally unfenced, except at a few stations. The Mandalay-Kunlong section is unfenced.

**Curves.**—On the main line (Rangoon to Mandalay), on the Irrawaddy line (Rangoon to Prome) on the Letpadan-Henzada-Bassein line on the Myingyan branch and on the Sagaing-Alon branch, the sharpest curve has a radius of 1,909 feet. On the Lashio branch the sharpest curve has a radius of 337 feet. On the Mu Valley line there are in all 13 curves of a radius of 573 feet, the sharpest on the line; four on the Katha branch between miles 212 and 213.8, the total length being 1,568 feet, and 9 on the main line between miles 171 to 235 on the Nankan-Mohyin section, 3,790 feet long.

**Gradients.**—The ruling gradient on the line is 1 in 200, on the Lashio branch, it is 1 in 25 compensated; on the Mu Valley, 1 in 60, uncompensated; on the Myingyan branch, 1 in 100 uncompensated; and on the Sagaing-Alon branch, 1 in 150 uncompensated.

**Terms of contract—**

The railways are worked under the following contract:—

**Contract of—**9th March 1897 (between the Secretary of State and the Burma Railways Company) for transfer and management.

The general conditions of the contract are as follows:—

**Government aid.**—Interest is guaranteed at 2½ per cent. on the Company's share capital. Land was also provided free of charge.

**Currency of contract.**—Government may determine the contract, after giving six months' notice, if the Company fail to perform their obligations, or if the undertaking be, in the opinion of the Secretary of State, in course of gross mismanagement by the Company, or if it be worked at a loss for three consecutive half-years. Government may also determine the contract, on the 31st December 1921, or at the end of any succeeding tenth year, by giving twelve months' previous notice. On the determination of the contract from any cause, the Secretary of State is to repay to the Company in sterling at par the capital raised by the latter.

**Power of Company to surrender contract.**—Nil.

**Terms of working.**—After deducting working expenses (which may include any single item of capital expenditure not exceeding Rs. 1,000 classed as a "Minor Work," subject to a maximum charge on such account of Rs. 15 per mile of line open in each half-year, and a payment of Rs. 40 for every mile of line open to traffic to be made half-yearly to Government for supervision) the net receipts in each half-year are to be applied in payment to Government of—

The equivalent of the interest paid for the half-year on any debentures issued by the Company;

The equivalent of the guaranteed interest at 2½ per cent. per annum on the Company's capital of £2,000,000, and of the interest payable on any additional share capital raised by the Company;

Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[ Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main-head 15</sup> <sub>Sub-head (a)</sub> **BURMA RAILWAYS (3' 3½" gauge)—*concl'd.***

**Terms of contract—*concl'd.***

The equivalent of interest at 2½ per cent. per annum on the sterling equivalent of the capital expenditure by Government on the railways up to the date of the transfer, and of interest on any additional moneys supplied by Government ;

After payment of the interest above-mentioned any surplus, which may remain unpaid in a year ending on the 30th June, to be divided between Government and the Company, in the proportion of four-fifths to the former and one-fifth to the latter.

*Rules and fares.*—Certain maxima and minima have been fixed within which the Company are permitted to vary rates.

**Statistics of working—**

TABLE I.								TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Company's share of net traffic receipts.	Gain or loss to the State	Earnings per mile per week.	Proportion of expenses to earnings
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	
1877	...	...	...	...	...	...	...	61	129.36
1878	...	...	...	...	...	...	...	115	93.03
1879	1,22,86,597	9,55,918	1,41,743	1.14	5,47,433	...	-4,05,695	114	85.17
1880	1,25,87,349	13,22,710	5,21,085	4.14	5,62,331	...	-41,246	158	60.60
1881	1,36,51,992	15,48,622	6,45,077	4.73	5,86,210	...	+58,867	184	58.21
1882	1,78,39,222	15,75,691	6,30,490	3.53	6,23,969	...	+6,461	188	59.99
1883	2,19,77,689	15,62,886	5,60,766	2.55	7,46,068	...	-1,85,302	187	64.66
1884	2,56,37,089	21,05,421	8,21,986	3.21	9,69,215	...	-1,47,279	181	60.96
1885	2,72,85,343	21,63,656	4,73,123	1.73	10,61,184	...	-5,88,061	143	78.13
1886	2,88,52,604	26,57,955	9,41,149	3.26	12,64,242	...	-3,23,093	156	64.51
1887	3,66,52,847	33,24,263	15,53,303	4.25	13,15,249	...	+2,43,054	193	53.12
1888	4,83,73,677	33,76,218	12,71,960	2.63	18,18,560	...	-5,46,600	171	62.33
1889	5,12,49,158	46,90,363	15,73,552	3.07	20,17,224	...	-4,43,672	169	66.45
1890	5,56,22,296	54,71,432	23,48,191	4.22	21,35,308	...	+2,12,883	210	57.08
1891	6,03,31,269	58,55,197	23,71,392	3.90	23,28,287	...	+43,105	199	59.50
1892	6,64,02,875	71,00,619	33,96,058	5.10	24,90,221	...	+8,95,967	237	52.31
1893	7,03,47,005	67,22,506	22,42,492	3.19	27,19,995	...	-4,77,503	178	66.64
1894	7,37,14,721	62,87,354	23,23,328	3.15	28,94,375	...	-5,71,047	164	63.05
1895	7,57,29,659	67,11,062	27,02,356	3.57	30,01,163	...	-2,98,807	169	59.73
1896	8,15,44,229	76,08,558	29,85,751	3.67	34,43,442	...	-4,57,691	167	60.76
1897	8,73,31,890	86,76,403	38,82,673	4.45	38,31,674	1,62,877	-1,11,978	188	55.25
1898	9,24,93,509	89,91,451	37,88,523	4.10	39,49,899	1,61,076	-3,22,452	184	57.87
1899	10,11,17,647	88,25,724	35,78,407	3.54	38,35,209	1,24,994	-3,81,796	179	59.45
1900	11,33,96,635	1,10,29,947	48,94,824	4.43	38,49,026	3,47,606	+6,98,192	195	55.62
1901	11,99,22,408	1,18,85,329	49,89,656	4.16	40,41,108	4,42,439	+5,06,109	197	58.03
1902	12,70,23,590	1,25,02,671	52,72,683	4.66	43,94,823	4,69,365	+4,03,495	203	57.83
1903	13,01,30,277	1,36,14,478	52,19,322	4.01	44,06,500	4,32,246	+3,80,576	197	61.66

Number <sup>Main-head 16</sup> <sub>Sub-head (a)</sub> **DEOGHUR RAILWAY (3' 3½" gauge)—**

**Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Baidyanath to Deoghur . . . . .	October 1891	23-12-83	4.79	4.79

**Details of construction—**

*Permanent-way.*—The permanent-way is laid with 36 lb. steel rails on wooden sleepers.

*Ballast.*—The line is ballasted throughout.

*Fencing.*—The line is unfenced.

*Curves.*—The sharpest curve has a radius of 2,640 feet and extends over a length of 3,000 feet.

*Gradients.*—The ruling gradient is 1 in 80 except in the 2nd mile, where it is 1 in 60.

**Terms of contract—**

The railway is worked under the following contract :—

*Contract of*—12th July 1883 (between the Secretary of State and the Deoghur Railway Company) for construction, maintenance and working.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 16</sup> <sub>Sub-head (a)</sub> DEOGHUR RAILWAY (3' 3 $\frac{3}{4}$ " gauge)—concl'd.

## Terms of contract—concl'd.

The general conditions of the contract are as follows:—

*Government aid.*—Land alone was provided free of charge.*Terms of contract.*—Messrs. Burn & Co. constructed the railway with capital raised locally and without any guarantee.*Currency of contract.*—Government may determine the contract, after giving six months' notice, if the Company fail to perform their obligations, and take over the railway at a valuation based on the earnings for the two years immediately previous to such resumption. Government may also determine the contract after the railway has been opened for traffic for 30 years, and thereafter at terms of 10 years, by giving 12 months' notice, and take over the railway at a valuation calculated at the average market rate of the shares during the previous three years, together with an additional bonus not exceeding 20 per cent. of such value.*Rates and fares.*—Certain maxima have been fixed within which the Company are permitted to vary rates.

## Statistics of working—

TABLE I.					TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1883	2,73,331	19,639	6,242	2.28	79	68.00
1884	2,75,000	23,735	10,701	3.90	83	54.90
1885	2,75,000	23,987	9,908	3.60	88	58.69
1886	2,75,042	25,017	11,743	4.27	100	53.06
1887	2,75,043	24,532	12,108	4.40	98	50.61
1888	2,81,180	25,812	11,521	4.10	104	55.37
1889	2,82,876	28,543	12,695	4.49	115	55.51
1890	2,82,616	26,095	10,915	3.86	105	58.17
1891	2,82,752	31,165	15,429	5.46	125	50.49
1892	2,88,329	28,964	9,707	3.37	108	64.00
1893	2,87,364	37,809	19,103	6.65	152	49.47
1894	2,87,526	29,425	9,659	3.36	118	67.17
1895	2,98,086	33,611	15,808	5.31	130	54.46
1896	2,87,797	30,014	11,493	4.00	120	61.69
1897	2,87,942	30,320	11,152	3.87	122	63.22
1898	2,88,453	32,100	6,601	2.28	129	70.44
1899	2,87,525	33,262	6,675	2.32	134	70.92
1900	2,87,379	34,900	7,376	2.56	140	78.87
1901	2,85,265	48,233	18,516	6.53	194	61.45
1902	3,01,057	29,758	6,025	2.00	120	79.75
1903	3,01,357	40,458	10,622	3.53	162	73.75

Number <sup>Main-head 17</sup> <sub>Sub-heads (a) and (b)</sub> DIBRU-SADIYA RAILWAY SYSTEM—

Lines comprising system.—The Dibru-Sadiya railway system is made up of—

	Open line. Miles.
(a) Dibru-Sadiya railway (3' 3 $\frac{3}{4}$ " gauge)	77.50
(b) Ledo and Tikak-Margherita Colliery railway (3' 3 $\frac{3}{4}$ " gauge)	11.00
Total	88.50

17 (a) Dibru-Sadiya railway proper (3' 3 $\frac{3}{4}$ " gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
<b>Main line—</b>						
Lower steamer ghat on the left bank of the Brahmaputra river, near Dibrugarh, eastward as far as the Dinjan stream	1881	Aug. 1883	15.00	61.50	1882	15
Dinjan stream to Makum Junction		16-7-83	23.50		1883	38
Makum Junction to Dihing bridge		2-5-84	23.00		1884	71
Total Main line	...	...	...	...		
<b>Talap branch—</b>						
Makum Junction to Dum-Duma	1881	2-5-84	10.00	16.00	1885 to 1903	77
Dum-Duma to Talap		5-2-85	6.00			
Total Branch	...	...	...	...		
GRAND TOTAL	...	...	...	77.50		

Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[ For Index see page 168.]

Number <sup>Main-head 17</sup> <sub>sub-heads (a) and (b)</sub> **DIBRU-SADIYA RAILWAY SYSTEM—*contd.***

**17 (a) Dibru-Sadiya railway proper (3' 3½" gauge)—*concl'd.***

## Details of construction—

**Permanent-way.**—The line throughout was originally laid with steel rails, 4½ lb. to the yard; these are now gradually being replaced by 50 lb. steel rails. The sleepers are chiefly uriam; but about 30,000 cast iron plate sleepers of the Denham-Olpherts type are distributed throughout the main line, three being put into each rail length.

**Ballast.**—The line is unballasted for one mile from Lower Steamer Ghat (Dibrugarh) and for 16 miles between Makum junction and Talap. On the rest of the line, broken stone ballast has been used.

**Fencing.**—The line is unfenced, with the exception of a short length at Dibrugarh.

**Curves.**—There are no curves with a radius of less than 700 feet.

**Gradients.**—The ruling gradient is 1 in 150.

## Terms of contracts—

The railway is worked under the following contracts:—

**Contracts of—**26th May 1880 (between the Secretary of State and the Assam Railway Company) for maintenance and working.

25th July 1881—Contract modifying that of 1880.

The general conditions of the contracts are as follows:—

**Government aid.**—Government guarantee payment of a subsidy, twelve months after the opening of the main line throughout or after each succeeding twelve months until the end of twenty years after opening, equal, together with the net earnings of the main line, to 5 per cent. of the paid up capital of the main line, not exceeding in any year Rs. 80,000. Similarly, Government guarantee a subsidy for the Makum branch, not exceeding Rs. 20,000 in any year. The free use of public roads is also provided for.

**Currency of contract.**—If the Company fail to fulfil their obligations, within thirty days after notice, Government can take possession and execute all repairs and works for the efficient working of the railway. If the Company do not maintain or work the railway for any time over fourteen days in any year, Government can deduct from the subsidy Rs. 210 in the case of the main line and Rs. 262 in the case of both main line and Makum branch each day, and in default Government will be discharged from all liabilities or obligations under this contract and can call on the Company to remove all rails, etc., and give up possession of the lands, roads, etc., the Company bearing all expense in restoring the same to their original condition. Government may also determine\* the contract, on giving 12 months' notice (clause 19 of contract, date 26th May 1880), at the expiry of the first five years after date of opening, and at subsequent intervals of five years, by paying twenty per cent. in excess of the value of the Company's property.

**Power of Company to surrender contract.**—Nil.

**Terms of working.**—The Company to maintain the railway and the road on which the rails are laid and the rolling stock and other equipments to the satisfaction of the Secretary of State and to carry on the work of common carriers.

**Rates and fares.**—To be approved by Government from time to time while subsidy is payable. If the net profit exceed 12 per cent of paid up capital, Government may order such reduction of tariff and rates as may be considered necessary, such reduction not lessening the net profits below 12 per cent.

## Statistics of working—

Calendar year.	TABLE I.							TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage of net traffic receipts on capital outlay.	Subsidy from local Government.	Total income.	Percentage of total income on capital outlay.	Earnings per mile per week.	Proportion of expense to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	
1883	22,22,253	48,220	—85,375	...	...	—35,375	...	52	171.70
1884	40,65,288	2,06,133	—68,406	...	51,550	—18,856	...	67	131.61
1885	49,46,729	2,57,335	—68,864	...	54,500	—9,364	...	62	123.05
1886	49,73,753	3,46,479	53,154	1.07	54,654	1,07,808	2.17	81	80.65
1887	53,32,605	4,04,928	1,02,540	1.92	1,00,000	2,02,540	3.80	94	74.68
1888	53,73,445	4,25,530	1,01,759	1.89	1,00,000	2,01,759	3.75	105	76.09
1889	55,18,750	4,64,018	1,25,147	2.27	1,00,000	2,25,147	4.08	114	72.26
1890	57,06,682	5,14,266	1,76,960	3.10	1,00,000	2,76,960	4.85	127	65.59
1891	67,05,474	4,98,682	1,70,526	2.54	1,00,000	2,70,526	4.03	123	65.80
1892	69,56,304	5,13,213	1,63,719	2.35	1,00,000	2,63,719	3.79	127	68.10
1893	71,70,562	5,12,098	1,52,972	2.13	1,00,000	2,52,972	3.53	127	70.13
1894	70,97,487	5,31,645	1,95,732	2.76	1,00,000	2,95,732	4.17	132	63.13
1895	74,02,729	6,01,142	2,69,543	3.64	1,00,000	3,69,543	4.99	149	55.16
1896	74,01,486	6,47,860	3,12,286	4.22	1,00,000	4,12,286	5.57	161	51.76
1897	74,20,119	7,74,189	2,64,750	3.57	1,00,000	3,64,750	4.92	192	68.12
1898	74,40,474	7,81,415	2,82,478	3.80	50,000	3,32,478	4.33	194	63.85
1899	74,56,183	8,59,414	4,49,688	6.03	†37,978	4,87,666	6.54	213	47.68
1900	77,14,349	9,00,847	4,62,381	5.99	...	4,62,381	5.99	224	43.67
1901	82,00,747	9,28,578	4,73,307	5.77	...	4,73,307	5.77	230	49.03
1902	82,00,694	8,51,880	4,11,187	5.01	...	4,11,187	5.01	211	51.73
1903	82,32,530	9,16,777	4,57,974	5.56	...	4,57,974	5.56	227	50.05

**17 (b) Ledo and Tikak-Margherita Colliery railway. (3' 3½" gauge)—**

The line was originally used only for the purposes of bringing coal from the mines on the south bank of the Dihing river to the Dibru-Sadiya railway. It was constituted a railway and working taken over by the Dibru-Sadiya railway from the 1st January 1897.

\* NOTE.—The Company having waived all their rights under clause 7 of contract dated 25th July 1881 to construct railways within the Lakhimpur District, Government have waived their right to purchase the railway before 1921, or at intervals of 10 years thereafter (Secretary of State's letter No. P. W. 2731, dated the 23rd December 1901).

† Subsidy due for previous period received during 1899.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 17</sup> <sub>Sub-heads (a) and (b)</sub> **DIBRU-SADIYA RAILWAY SYSTEM—*concl'd.***17 (b) Ledo and Tikak-Margherita Colliery railway (3' 3½" gauge)—*concl'd.*

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		
Main line— Dihing Bridge to Ledo . . . . .	...	17-2-84	7.50			
Namdang branch— Margherita to Namdang . . . . .	...	1-1-01	8.50		1884 to 1900	8
TOTAL . . . . .	...	...	...	11.00	1901 to 1903	11

## Details of construction—

*Permanent-way.*—The line is laid with 50 lb. steel rails on uriam sleepers.*Ballast.*—The main line is three-fourths ballasted, but the Namdang branch is unballasted.*Fencing.*—The line is unfenced.*Curves.*—The sharpest curve has a radius of 600 feet.*Gradients.*—The ruling gradient is 1 in 100.

## Terms of contract—

The railway is worked under the following contract:—

*Contract of.*—30th July 1881, between the Secretary of State and the Assam Railways and Trading Company, for coal and iron mining in the Makum coal fields and for the construction of a railway or tramway to effect a junction with the railways which may be constructed to the bank of the Dihing river.*Terms.*—Contained in Government of India, Public Works Department, No. 628 R. T., dated the 6th August 1896.

The general conditions are as follows:—

*Government aid.*—Nil.*Currency of contract.*—The coal concession is for a term of 20 years from 30th July 1881 within an area of 30 square miles and for a further term of 30 years within an area of at least 4 square miles.*Power of Company to surrender contract.*—Nil.*Terms of working.*—The colliery to be charged with the cost of maintenance of the branch and sidings owned by it, all other charges for working the open line to be divided between the railway and colliery in proportion to their respective gross earnings plus 5 per cent. on the gross earnings of the colliery for rolling-stock.*Rates and fares.*—Certain rates have been sanctioned by Government for the carriage of goods.

## Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1897 . . . . .	11,46,240	45,871	6,024	0.70	88	82.51
1898 . . . . .	12,00,698	55,313	3,752	0.31	142	93.22
1899 . . . . .	12,83,416	63,084	22,053	1.72	162	65.04
1900 . . . . .	12,84,375	65,724	17,981	1.40	169	72.64
1901 . . . . .	16,30,162	70,293	11,145	0.69	123	84.15
1902 . . . . .	16,53,446	58,259	487	0.08	102	99.25
1903 . . . . .	16,62,082	59,077	-8,208	...	103	113.89

Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 168.]

Number Main head 18 **JODHPUR-BIKANER RAILWAY SYSTEM—**  
Sub-heads (a) to (c)

Lines comprising system.—The Jodhpur-Bikaner railway system is made up of—

	Open line. Miles.
(a) Jodhpur-Bikaner (Jodhpur section) (3' 3½" gauge)	454.94
(b) Jodhpur-Bikaner (Bikaner section) (3' 3½" gauge)	245.95
(c) Jodhpur-Hyderabad railway (British section) (3' 3½" gauge)	123.98
<b>Total</b>	<b>824.27</b>

**18 (a) Jodhpur-Bikaner (Jodhpur section) (3' 3½" gauge)—**

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles
Marwar Railway Junction to Marwar Pali .. . . .	1881	24-6-82	19.00		1882	} 19
Marwar Pali to Luni Junction . . . . .	1883	17-6-84	25.00		1883	
Luni Junction to Jodhpur . . . . .	1884	9-3-85	20.00		1884	44
Jodhpur to Merta Road . . . . .	1890	8-4-91	64.00		1885	64
Merta Road to Kuchaman Road . . . . .	July 1891	13-3-93	73.00		1886	64
Luni Junction to Pachpadra . . . . .	31-12-85	22-3-87	60.00		1887 to 1890	} 124
Balotra to Barmer . . . . .	} Aug. 1897	15-5-90	60.00		1891	
Barmer to the Jodhpur Frontier . . . . .		22-12-00	74.41		1892	247
Merta Road to Nagour . . . . .	} 1890	16-10-91	85.00		1893 to 1898	} 320
Nagour to Bhagu . . . . .		9-12-91	24.50		1899	
<b>TOTAL</b> . . . . .	...	...	...	<b>454.94</b>	1900 to 1903	} 455

Details of construction—

**Permanent-way**—Between Kuchaman Road and Jodhpur and between Merta Road and Bhagu, the permanent-way consists of 36 lb. flat-footed steel rails, laid on steel trough and deodar sleepers. From Jodhpur to Marwar Railway Junction, the line was originally laid with second hand 36 lb. iron rails on jungle wood and half round creosoted pine sleepers, these have all been replaced by 41½ lb. and 50 lb. steel rails laid on deodar sleepers and for a short length on steel sleepers. The line between Balotra and the Frontier is with laid on 50 lb. steel rails and creosoted pine and steel sleepers. The permanent-way between Luni Junction and Balotra has been re-laid with 50 lb. steel rails on pine sleepers. The Balotra-Pachpadra section is laid with 36 lb. steel rails on steel trough sleepers; these are being gradually replaced by deodar sleepers on account of the salt soil.

**Ballast**—On the greater portion of the line the ballast consists of coarse sand and small kunkur; but on the Merta Road-Kuchaman Road section it is chiefly broken stone.

**Fencing**—With the exception of a few stations, the line is practically unfenced.

**Curves**—There are no curves with a radius less than 1,000 feet.

**Gradients**—The ruling gradient is 1 in 150.

Terms of contracts—

The railway is worked under the following contracts:—

Contracts of—13th July 1889 } (between the Government of India and the Jodhpur and Bikaner Durbars) for  
30th July 1889 } constructing and working the line.

The General conditions of the contracts are as follows:—

**Government aid**—The line is the exclusive property of the two Durbars.

**Currency of contracts**—These contracts may be modified at any time by mutual consent.

**Terms of working**—Each Durbar to receive all the profits of the section of line belonging to the Durbar.

**Rates and fares**—No provision was made for rates and fares in the contracts, but certain rates and fares were approved by executive order.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report of 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 18</sup> <sub>Sub-heads (a) to (c)</sub> JODHPUR-BIKANER RAILWAY SYSTEM—contd.18 (a) Jodhpur-Bikaner (Jodhpur section) (3' 3½" gauge)—concl'd.  
Statistics of working—

TABLE I.					TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1883	4,99,966	40,861	23,110	4.62	42	42.74
1884	8,09,995	64,262	31,748	3.92	39	50.59
1885	15,40,385	1,70,691	1,12,505	7.30	54	34.30
1886	21,22,593	2,05,728	1,33,818	6.23	62	35.20
1887	22,81,493	3,18,703	1,91,677	8.40	55	39.98
1888	22,80,006	3,60,863	1,91,558	8.40	56	46.91
1889	22,78,978	3,59,358	1,92,258	8.45	56	46.50
1890	22,78,838	3,70,825	1,96,192	8.68	58	47.09
1891	41,87,110	6,12,839	3,31,364	7.99	66	45.44
1892	60,59,552	9,46,980	5,28,941	8.78	74	44.14
1893	64,74,811	8,31,765	4,33,895	6.70	52	47.83
1894	64,49,874	10,81,156	6,69,373	10.38	65	38.09
1895	64,32,934	9,74,788	5,69,246	8.95	58	41.60
1896	64,78,828	11,64,485	7,38,278	11.40	70	36.60
1897	74,90,176	11,22,858	7,44,799	9.94	67	33.66
1898	1,00,85,594	12,22,726	7,30,956	7.25	73	42.22
1899	1,13,42,183	19,09,097	11,66,844	10.29	102	38.88
1900	1,14,23,508	16,28,478	9,07,480	7.94	81	44.27
1901	1,17,24,896	15,67,073	7,14,826	6.10	66	54.39
1902	1,18,69,424	16,76,216	8,35,202	7.04	71	50.17
1903	1,19,31,439	16,34,708	8,91,196	7.47	69	45.48

18 (b) Jodhpur-Bikaner (Bikaner section) (3' 3½" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.	1890 to 1897	Miles.
Bhagu to Bikaner	1890	9-12-91	43.50			44
Bikaner to Dulmera	Dec. 1895	2-6-98	42.00			
Dulmera to Lankransar	27-1-98	1- - -1	8.32			86
Lankransar to Suratgarh	9-2-99		63.53			95
Suratgarh to Bhatinda	15-7-99	9-9-02	88.00			86
					1901	157
					1902	245
					1903	245
TOTAL, BIKANER SECTION	...	...	...	245.35		

## Details of construction—

*Permanent-way.*—The permanent-way consists of 36 lb. flat footed steel rails, laid on steel trough and deodar sleepers.*Ballast.*—The ballast consists of coarse sand and small kunkur except on the Suratgarh-Bhatinda section where it is broken brick and kunkur.*Fencing.*—The line is practically unfenced except at a few stations.*Curves.*—There are no curves with a radius less than 1,000 feet.*Gradients.*—The ruling gradient is 1 in 150.

## Terms of contracts—

See under Jodhpur section, page 266.

## Statistics of working—

TABLE I.					TABLE II.	
Calendar year.	Capital outlay to the end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1890	4,15,590	...	2,724	0.19	36	46.99
1891	14,32,706	5,139	24,904	2.63	34	67.47
1892	9,48,622	76,547	25,735	2.66	30	61.43
1893	9,65,771	66,725	40,447	4.17	35	49.61
1894	9,69,407	80,274	45,096	4.64	38	47.89
1895	9,71,084	86,539	75,382	7.75	53	37.56
1896	9,73,294	1,20,727	65,504	6.73	52	44.02
1897	9,73,478	1,17,010	77,616	3.35	31	48.54
1898	23,14,152	1,37,472	1,04,344	3.65	37	40.22
1899	28,61,917	1,74,539	1,04,362	3.22	43	45.43
1900	32,60,432	1,92,358	1,05,697	2.14	30	57.18
1901	48,93,535	2,46,875	1,42,580	2.72	30	55.72
1902	52,49,539	3,22,022	2,66,197	5.19	41	49.33
1903	51,30,925	5,25,329				



Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 166.]

Number Main head 18 JODHPUR-BIKANER RAILWAY SYSTEM—*concl'd.*  
Sub-heads (a) to (c)

18 (c) Jodhpur-Hyderabad (British section) (3' 3½" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<b>JODHPUR-HYDERABAD (BRITISH SECTION)—</b>						
Hyderabad to Shadipalli . . . . .	5-3-91	*18-8-92	55.49		1892 to 1899	} 5
Shadipalli to the Jodhpur Frontier . . . . .	Aug. 1897	22-12-00	68.49		1900 to 1903	
<b>TOTAL, JODHPUR-HYDERABAD (BRITISH SECTION)</b> . . . . .	...	...	...	123.98		12

## Details of construction—

*Permanent-way.*—The Hyderabad-Shadipalli section is laid with 60 lb. iron rails on deodar sleepers, with the exception of 2 miles near Shadipalli which has been relaid with 50 lb. steel rails. On the Shadipalli-Jodhpur Frontier section about 14 miles east of Shadipalli are laid with 41½ lb. steel rails on Denham-Olpherts' cast-iron sleepers, and the remainder with 50 lb. steel rails on deodar sleepers.

*Ballast.*—The ballast is of kunkur, stone and broken brick.

*Fencing.*—With the exception of a few stations, the line is practically unfenced.

*Curves.*—There are no curves with a radius less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 150.

## Terms of contract—

The railway is worked under the following agreement:—

*Agreement of*—22nd December 1900 (between the Government of India and His Highness the Maharaja of Jodhpur and the Council of Regency, Bikaner) for the construction of a railway, on the 3' 3½" gauge, from Balotra to Hyderabad and for working the section from the Jodhpur Frontier to Hyderabad.

The general conditions of the agreement are as follows:—

*Currency of agreement.*—As regards the working of the railway, this agreement remains in force until determined by either party, on 12 months' notice on the 1st day of January or the 1st day of June in any year.

*Terms of working.*—Working expenses, excluding maintenance, are divided between the British and Native state sections in the ratio of the gross earnings of each section. Maintenance charges to be actual cost for each section of line.

*Rates and fares.*—Maximum and minimum rates and fares and classification in force on the North Western State railway from time to time to be in force on the British section.

NOTE.—Government of India, No. 255 R. T., dated the 6th March 1900, approved of the Rajputana-Malwa railway classification of goods, which is in force on the Native state section, being adopted on the British section, the stipulation in agreement requiring the adoption of the North Western State railway classification remaining unaltered in case it may be considered desirable to enforce it hereafter.

## Statistics of working—

Calendar year.	TABLE I.						TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Gain or loss to the State.	Earnings per mile per week.	Proportion of expenses to earnings.
1891	Rs. 2,91,401	Rs. ...	Rs. ...	...	Rs. 5,356	Rs. -5,356	...	...
1892	16,31,818	33,206	-1,994	...	59,649	-61,598	29	105.87
1893	16,61,091	1,30,817	16,471	0.99	65,767	-49,298	43	87.41
1894	17,27,619	1,45,222	86,062	2.08	68,940	-32,878	47	75.17
1895	17,74,095	1,68,139	46,609	2.63	71,080	-24,471	55	72.28
1896	18,00,799	1,87,503	64,376	3.57	71,420	-7,044	61	65.67
1897	18,37,796	2,05,182	59,418	3.23	73,552	-14,139	67	71.04
1898	20,19,772	2,22,647	70,159	3.47	77,553	-7,394	73	68.49
1899	33,48,948	2,25,242	88,463	2.64	1,07,380	-18,917	74	60.78
1900	†41,71,400	1,93,211	65,933	1.10	1,78,034	-1,18,051	65	65.93
1901	38,81,861	4,24,307	1,78,567	4.47	1,52,429	†21,138	66	59.09
1902	40,45,972	5,04,008	2,18,814	5.41	1,59,771	+59,043	78	58.59
1903	40,45,338	5,84,094	2,62,379	6.49	1,60,179	+1,02,200	91	55.08

\* Date of opening of standard gauge line; converted and opened on the 3' 3½" gauge on the 20th October 1901.

† Including the Hyderabad-Rahoki section.

‡ The gain in 1901 was due to the completion of the line which was previously only partially open.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Main head 19  
Sub-heads (a) to (c) ROHILKUND AND KUMAON RAILWAY SYSTEM.

Lines comprising system.—The Rohilkund and Kumaon railway system is made up of—

	Open line.	Under construction.	Total.
	Miles.	Miles.	Miles.
(a) Rohilkund and Kumaon railway (3' 3 $\frac{3}{4}$ " gauge)	53' 92	148' 00	201' 92
(b) Lucknow-Bareilly State railway (3' 3 $\frac{3}{4}$ " gauge)	237' 04	...	237' 04
(c) Poyayan Light railway (2' 6" gauge)	39' 50	...	39' 50
<b>Total</b>	<b>330' 46</b>	<b>148' 00</b>	<b>478' 46</b>

## Running powers—

Home line over Foreign line :—

Bhojsepara to Bareilly, Lucknow-Bareilly State railway

Miles.  
12' 0019 (a) Rohilkund and Kumaon railway proper (3' 3 $\frac{3}{4}$ " gauge).—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Bhojsepara to Kathgodam	1882	12-10-84	53' 92	53' 92	1884 to 1903	54
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>						
Bareilly to Soron	3-7-03	...	56' 00	148' 00		
Moradabad to Ramnagar		...	47' 00			
Jalkna to Kashipur		...	45' 00			
<b>TOTAL LINES UNDER CONSTRUCTION</b>	...	...	...	<b>148' 00</b>		
<b>GRAND TOTAL</b>	...	...	...	<b>201' 92</b>		

## Details of construction—

*Permanent-way.*—The permanent-way consists of 41 $\frac{1}{2}$  lb. steel rails laid on sal, asna and deodar sleepers.*Ballast.*—The ballast consists of broken brick, shingle and kunker.*Fencing.*—The line is unfenced except at stations and for about 21 miles between Haldwani and Kichha.*Curves.*—There are no curves with a radius less than 1,000 feet.*Gradients.*—The ruling gradient is 1 in 70.

## Terms of contracts—

The Rohilkund and Kumaon, and Lucknow-Bareilly State railways are worked under the following contracts—

*Contracts of*—12th October 1882.—Rohilkund and Kumaon Company's original contract.

8th September 1890.—Contract for the working and maintenance of the Lucknow-Bareilly State railway and the Rohilkund and Kumaon Company's line as one system. (Principal contract.)

31st December 1892.—Relating to advances of capital by Government.

5th February 1901.—Contract modifying the terms of the previous contracts.

The general conditions of the contracts are as follows :—

*Government aid.—Company's section.*—Government guaranteed interest at 4 per cent. in sterling on the capital expended up to £200,000 until the line was opened for traffic, but not for longer than the first two years of the contract; thereafter a subsidy of Rs. 20,000 half-yearly for ten years from date of opening, which ceased after 31st December 1894. Land was provided free, subject to the condition that the Company pay on demand to Government the cost price of land purchased by the latter subsequent to the date of the principal contract.*Lucknow-Bareilly section.*—The Company to raise £160,000 capital by debentures which Government guarantees as to repayment of capital and payment of interest, the Company undertaking to reimburse Government from their own funds any amount by which the guarantee may exceed the annual limit of Rs. 96,000. Land was also provided free of charge.*Note.*—All sums to be advanced by Government after the 31st December 1900 bear interest at the rate of 3 $\frac{1}{2}$  per cent. per annum under agreement dated the 5th February 1901.*Terms of contract.*—The Lucknow-Bareilly section was taken over in an unfinished state by the Company which raised the sum of £160,337 by the issue of debentures for the purpose of completing it. The remainder of the capital expended has been supplied by Government. The contract provides that the railway shall be worked in conjunction with the Company's own line, a joint account of working expenses being kept and the total amount divided half-yearly between the State line and the Company's line in proportion to their respective gross earnings.*Currency of contracts.*—(1) *Rohilkund and Kumaon railway contract.*—Government may terminate the contract at the end of the 30th year (i.e., on the 31st December 1912) or the 50th year (i.e., on the 31st December 1932) by giving 12 months' notice. If the contract terminate by such notice or by efflux of time, Government is to pay 25 times the average net earnings.

Appendix 38.  
History of railways.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

## History of railways constructed and in progress.

[For Index see page 169].

Number  $\frac{\text{Main head 19}}{\text{Sub-heads (a) to (c)}}$  ROHILKUND AND KUMAON RAILWAY SYSTEM—contd.

## 19 (a) Rohilkund and Kumaon railway proper (5' 3½" gauge)—concl'd.

## Terms of contracts—concl'd.

deducting the Government share of surplus profits during the 5 years preceding the termination. The Government may also determine the contract at any time on six months' notice, if the Company fail to observe their obligations, on payment of the value of permanent-way, stock and plant, or may call upon the Company to accept the same in lieu of payment in which case the Company must remove their property within nine months from the termination of the contract, otherwise it becomes the property of the Government.

(2) Lucknow-Bareilly State railway.—Government may determine the contract on the 31st December 1907, or on the 31st December of any subsequent year by giving twelve months' notice. In the event, however, of the original contract dated the 12th October 1882 terminating by efflux of time or under notice of purchase or notice of determination, this contract *ipso facto* also terminates at the same time. Government may also terminate the contract if the Company fail to observe their obligations after six months' notice. On determination of the contract, Government resume possession of the State railway on payment to the Company of the amount of the capital received or take over their liabilities with respect to such capital.

## Power of Company to surrender contract.—Nil.

Terms of working.—Company's section.—During the period that the Government are liable to pay interest, after deducting working expenses (which may include any single item of capital expenditure, not exceeding Rs. 1,000 classed as 'Minor Work' subject to a maximum charge on such account of Rs. 15 per mile of line open in each half-year, and a payment of Rs. 20 for every mile of line open to traffic to be made half-yearly to Government for supervision) the surplus profits, after repayment of the guaranteed interest, go to the Company. Subsequently, half the surplus profits, after 5 per cent. for the year (within a limit of £5,000 for each half-year) has been appropriated to the Company, is to be applied in repayment to Government of arrears of Guaranteed interest and interest thereon. The other half and any ultimate surplus to belong to the Company. After the year ending 31st December 1897, Government are to receive half the surplus profits in excess of 6 per cent.

Notes.—It has been agreed that, in calculating the surplus profits for division, sums received by the Company as their share of the surplus profits of the Lucknow-Bareilly railway shall not be taken into account.

Lucknow-Bareilly section.—The working expenses of the system (which may include any single item of capital expenditure not exceeding Rs 1,000 classed as a 'Minor Work' subject to a maximum charge on such account of Rs. 15 per mile of line open in each half-year, and a payment of Rs. 20 for every mile of line open to traffic to be made half-yearly to Government for supervision) are divided between the Company's line and the State railway in proportion to their gross earnings, the profits of the State railway being applied:—in meeting payment of interest on the debentures, and of interest at 4 per cent. on any further capital supplied by the Company for the undertaking or advanced by Government; in payment to Government of interest at 4 per cent. on their capital in the undertaking; the residue to be divided half-yearly between Government and the Company in the ratio of their respective shares of capital in the undertaking.

Any insufficiency of the profits to meet the charges under (1) that may be met by money supplied by Government shall be a cumulative preference charge against subsequent profits before division of residue.

Rates and fares.—Certain maxima and minima have been fixed within which the Company are permitted to vary rates.

## Statistics of working—

TABLE I.								TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage on capital outlay.	Subsidy from Government.	Total income.	Percentage of total income on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	
1884	19,40,266	36,543	1,734	0.09	—	1,734	0.09	51	95.16
1885	21,71,124	2,38,572	40,153	1.85	40,000	80,153	3.69	68	66.40
1886	22,52,962	3,00,191	83,832	3.72	40,000	1,23,832	5.50	86	58.75
1887	22,91,619	3,19,274	76,800	3.35	40,000	1,16,800	5.10	92	63.42
1888	23,40,100	3,34,092	1,02,120	4.36	40,000	1,42,120	6.07	98	57.46
1889	23,96,624	3,72,270	1,20,135	5.01	40,000	1,60,135	6.69	107	56.98
1890	20,37,223	3,14,834	1,11,008	5.45	40,000	1,51,008	7.41	90	52.04
1891	20,49,458	3,25,084	1,33,440	5.82	20,000	1,53,440	7.49	112	58.22
1892	20,58,575	3,20,567	1,57,780	6.82	40,000	1,97,780	9.61	127	54.17
1893	20,82,280	4,25,909	1,43,180	6.17	40,000	1,83,180	8.80	124	56.78
1894	20,80,440	4,59,315	1,75,191	7.16	40,000	2,15,191	10.34	134	52.91
1895	20,78,251	4,04,504	1,52,978	7.36	—	1,52,978	7.36	118	62.18
1896	20,79,863	4,26,905	1,54,595	7.43	—	1,54,595	7.43	125	63.79
1897	21,20,428	4,23,720	1,73,184	8.17	—	1,73,184	8.17	124	59.38
1898	21,42,552	4,62,308	2,21,899	10.36	—	2,21,899	10.36	135	53.24
1899	21,48,313	4,65,623	2,34,020	10.89	—	2,34,020	10.89	136	49.74
1900	21,53,125	4,37,572	2,24,048	10.59	—	2,26,048	10.59	156	48.64
1901	22,09,423	3,84,314	2,09,896	9.50	—	2,09,896	9.50	112	45.38
1902	23,36,911	4,10,628	2,18,317	9.37	—	2,18,317	9.34	146	46.83
1903	25,39,790	4,13,147	2,20,405	8.51	—	2,20,405	8.51	121	46.65

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 19</sup> <sub>Sub-heads (a) to (c)</sub> ROHILKUND AND KUMAON RAILWAY SYSTEM—contd.

19 (b) Lucknow-Bareilly State railway (3' 3 3/4" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<i>Main line—</i>			Miles.	Miles.	1884	Miles. 86
Lucknow to Sitapur	8-10-84	15-11-86	55-00	198-55	1885	36
Sitapur to Lakhimpur		15-4-87	28-50		1886	91
Lakhimpur to Gola Gokaran Nath		15-12-87	21-50		1887	141
Gola Gokaran Nath to Pilibhit	27-12-89	1-4-91	37-55	1888	141	
Pilibhit to Bhojsepara	Bareilly to mile 4-62 on 17-3-82. Mile 4-62 to Pilibhit, 24-2-83.	15-11-84	24-00		1889	141
Bhojsepara to Bareilly		12-10-84	13-00		1890	141
Total Main line	...	...	...	1891	198	
<i>Branches—</i>				1892	198	
Bareilly grain siding	24-3-82	1-4-91	1-75	1893	222	
<i>Dudhwa branch—</i>				1894	231	
Mailani to Sarda	Mailani to Dudhwa, 3-12-90; Dudhwa to Sonaripur 2-11-93 12-4-01	1-1-93	15-00	38-49	1895	231
Sarda to Sohela		10-3-93	8-50		1896	231
Sohela to Sonaripur		13-3-94	7-37		1899	231
Dudhwa to Chandan Choki		4-4-03	5-37		1900	231
Total Branches	...	...	...	1901	231	
TOTAL OPEN MILEAGE	...	...	...	1902	231	
				1903	237	

Details of construction :—

*Permanent-way.*—The permanent-way consists of 41 1/2 lb. steel rails (with the exception of the old Oudh and Rohilkhand railway 60 lb. steel rails between Daliganj and Lucknow Junction), laid on sal, asna and deodar sleepers.

*Ballast.*—The ballast consists of broken bricks, kunkar and shingle.

*Fencing.*—The line is unfenced except at stations and for 7 miles between Lucknow Junction and Mariaon.

*Curves.*—The only curve with a radius of less than 1,000 feet occurs between Lucknow Junction and Lucknow City stations and is 0.63 miles in length.

*Gradient.*—The ruling gradient is 1 in 100 except on the Dudhwa branch where it is 1 in 60.

Terms of contracts—

See under Rohilkund and Kumaon railway proper, pages 269 and 270.

Statistics of working—

Calendar year.	TABLE I.							TABLE II.					
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Company's share of net traffic receipts.	Gain or loss to the State.	BAREILLY-PILIBHIT, 3' 3 3/4".		LUCKNOW-SITAPUR-SERAMAU, 3' 3 3/4".		LUCKNOW-BAREILLY, 3' 3 3/4".	
								Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.	Earnings per mile per week.	Pro: of exp: to earnings.
1883	Rs. 4,84,915	Rs. ...	Rs. ...	...	Rs. 11,192	Rs. ...	Rs. -11,192	...	...	...	...	...	...
1884	13,43,699	10,239	839	0-06	86,573	...	-35,733	32	91-81	...	...	...	...
1885	25,45,567	82,827	17,243	0-68	53,247	...	-38,004	44	83-79	...	...	...	...
1886	42,16,146	1,15,296	28,729	0-68	1,48,570	...	-1,19,841	53	77-46	45	76-29	...	...
1887	52,24,221	2,92,470	67,924	1-30	1,85,046	...	-1,17,122	52	71-47	46	78-49	...	...
1888	52,32,870	3,52,327	99,031	1-37	2,03,503	...	-1,04,472	50	70-31	47	70-31	...	...
1889	54,58,585	4,28,731	1,47,868	2-70	2,16,189	...	-68,321	59	66-45	59	65-10	...	...
1890	65,38,824	4,56,798	1,32,338	2-02	2,30,899	...	-98,361	64	66-08	62	72-78	...	...
1891	79,17,846	4,95,068	1,73,011	2-19	2,72,065	...	-99,054	...	...	...	...	56	65-05
1892	81,66,804	6,32,836	2,74,601	3-36	3,07,651	11,501	-44,551	...	...	...	...	66	59-72
1893	89,89,362	7,28,878	2,78,541	3-26	3,26,776	2,185	-55,364	...	...	...	...	67	62-29
1894	85,99,058	9,74,269	4,48,219	5-22	3,45,923	79,310	+ 23,585	...	...	...	...	87	59-25
1895	97,22,466	8,25,934	3,13,116	3-59	3,56,596	15,834	-59,314	...	...	...	...	74	61-90
1896	89,63,620	8,27,599	3,02,071	3-37	3,48,885	13,415	-60,229	...	...	...	...	75	63-82
1897	93,02,715	8,27,371	3,35,776	3-61	3,61,559	26,980	-52,754	...	...	...	...	69	59-42
1898	94,90,476	10,34,989	5,00,200	5-27	3,64,852	66,721	+ 68,627	...	...	...	...	94	51-62
1899	94,97,485	12,72,160	6,33,355	6-63	3,65,537	76,392	+ 1,91,466	...	...	...	...	114	50-21
1900	99,21,432	12,53,801	6,51,957	6-57	3,78,097	1,47,611	+ 1,31,249	...	...	...	...	107	48-72
1901	1,01,83,243	13,72,520	7,58,124	7-44	3,91,796	89,195	+ 2,67,133	...	...	...	...	123	44-76
1902	1,12,86,019	14,53,823	7,69,568	6-81	4,23,528	71,666	+ 2,74,374	...	...	...	...	182	47-05
1903	1,15,01,911	14,03,266	7,49,669	6-51	4,53,835	52,573	+ 2,42,291	...	...	...	...	...	...

## Appendix 38. History of railways.

### APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

#### Number $\frac{\text{Main head 19}}{\text{Sub-heads (a) to (c)}}$ ROHILKUND AND KUMAON RAILWAY SYSTEM—concl'd.

##### 19 (c) Powayan Light railway (3' 6" gauge)—

The line was originally constructed by the Powayan Steam Tramway Company and the maintenance and working were taken over by the Rohilkund and Kumaon Railway Company from 17th December 1900.

Progress in opening.—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT	
					Calendar year.	Mileage open.
						Miles.
Shahjahanpur to Powayan	} Jan'y. 1889	{	17-00	39-50	1890	17
Powayan to Khotar			14-00		1891	31
Khotar to Mailani			8-50		1892	31
	Feb'y. 1894				1893	31
TOTAL	...	...	...	39-50	1894 to 1903	40

##### Details of construction—

*Permanent-way.*—The permanent-way consists of flat-footed steel rails, weighing 25 lb. to the yard, laid on sal sleepers.

*Ballast.*—The line is ballasted with earth.

*Fencing.*—The line is unfenced except at stations.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 1,00.

##### Terms of contracts—

The Powayan Light railway is worked under the following contracts:—

*Contract of*—1st July 1901 (between the Secretary of State and the Powayan Light Railway Company) for maintenance and working.

6th November 1902 (between the Secretary of State and the Rohilkund and Kumaon Railway Company) as to terms of working.

The general conditions of the contracts are as follows:—

*Government aid.*—Land.

*Currency of contract.*—The contract is terminable on the 31st December 1912 or any time thereafter on one year's notice being given by either party.

*Terms of working.*—The working agency is to retain 70 per cent. of the gross earning until the line is fully equipped, and thereafter, the same percentage as that at which the whole open system is worked, subject to a minimum of 60 per cent. The percentage so retained may include any single item of capital expenditure not exceeding Rs. 200 and subject to maximum charge of Rs. 20 per mile in each half-year.

*Rates and fares.*—The same rates and fares as may from time to time be applicable to the Lucknow-Bareilly State railway.

##### Statistics of working.—

Calendar year.	TABLE I.				TABLE II.		
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.	
	Rs.	Rs.	Rs.		Rs.		
1901	8,41,038	66,862	20,659	2-39	33	70-00	
1902	8,88,456	75,675	22,521	2-52	37	70-24	
1903	8,94,619	71,815	28,482	3-18	35	60-34	

#### Number $\frac{\text{Main head 20}}{\text{Sub-heads (a) to (f)}}$ SOUTH INDIAN RAILWAY SYSTEM (3' 3½" gauge)—

Lines comprising system.—The South Indian railway system is made up of—

	Open line.	Under construction.	Total.
	Miles.	Miles.	Miles.
(a) South Indian railway (3' 3½" gauge)	1,123-19	9-00	1,132-19
(b) Karaikkal-Ferulam railway (3' 3½" gauge)	14-65	...	14-65
(c) Pondicherry railway (3' 3½" gauge)	7-85	...	7-85
(d) Tanjore District Board railway (3' 3½" gauge)	98-40	5-53	104-99
(e) Tinnevely-Quilon (Travancore) (British section) (3' 3½" gauge)	49-50	0-91	50-41
(f) Tinnevely-Quilon (Travancore) (Native state section) (3' 3½" gauge)	0-43	57-62	58-05
Total	1,295-02	73-06	1,368-08

##### 20 (a) South Indian railway proper (3' 3½" gauge)—

The line from Negapatam to Erode was commenced in May 1859 by the late Great Southern of India Railway Company and was completed on the 5' 6" gauge. It was converted to the 3' 3½" gauge in sections as follows:—Negapatam to Trichinopoly, June and July 1875; Trichinopoly to Karur, July 1879; Karur to Erode, December 1879. The line from Arkonam to Little Conjeeveram was commenced on the 11th March 1864 by the Indian Tramway Company under the subsidiary system and was completed on the 3' 6" gauge. It was converted to 3' 3½" gauge in July 1878.

On the 1st January 1891, the South Indian railway was purchased by the Secretary of State and handed over, together with the Villupuram-Guntakal State railway, to a new Company called the "South Indian Railway Company, Limited," the whole now forming the South Indian railway.

The Pamban branch has been constructed with the object of placing the island of Ramesvaram in communication





## Appendix 38. History of railways.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

### History of railways constructed and in progress.

[For Index see page 168.]

#### Number <sup>Main head 20</sup> SOUTH INDIAN RAILWAY SYSTEM—contd. <sub>Sub-heads (a) to (f)</sub>

#### 20 (a) South Indian railway proper (3' 3½" gauge)—contd.

##### Details of construction—

**Permanent-way.**—The main line from the Beach station at Madras to Tuticorin is laid with 50 lb. steel rails on cast iron pot sleepers; the rest of the line is laid with various descriptions of rails and sleepers.

**Ballast.**—The line is ballasted throughout.

**Fencing.**—The line is fenced with aloe and wire (with the exception of the Villupuram-Dharmavaram and Pakala-Gudur sections and the Pamban branch which are only fenced at stations).

**Curves.**—There are only 1·19 miles of curves with radii of less than 1,000 feet.

**Gradients.**—The ruling gradient is 1 in 200 except on the Villupuram-Dharmavaram, Pakala-Gudur, Trichinopoly-Madura, and Trichinopoly-Erode sections where it is 1 in 100.

##### Terms of contracts—

The railway is worked under the following contracts:—

**Contract of—**24th November 1890 (between the Secretary of State and the South Indian Railway Company) for working.

27th June 1901 (between the Secretary of State and the South Indian Railway Company) relating to the Pamban branch.

The general conditions of the contracts are as follows:—

**Terms of contract.**—The original South Indian Railway Company ceased to exist at the end of 1890, when the railway was purchased by the State. The purchase was effected by means of a cash payment to the Company, and all the contracts then subsisting between the Secretary of State and the Company were determined. The purchase price was £4,197,557.\* The Secretary of State assumed all liability in connection with the

Company's stock at date of purchase ...	£
...	3,208,280
Premium ...	939,277
	<u>4,197,557</u>

Company's debentures and debenture stock, which is irredeemable. The present Company (practically the old one in a modified form) was constituted, with a capital of £1,000,000, as the agency for carrying on the working of the lines after their acquisition by the Government, and for completing a system of State lines which was under construction by the former Company at the date of the termination of its

contract. Any further moneys required to be provided either by the Secretary of State, or raised by the Company under guarantee. Subject to the provision of the contract, all moneys paid by the Company become the absolute property of the Secretary of State.

**Currency of contract.**—Government may determine the contract on the 31st December 1910 or at the end of any succeeding fifth year, giving 12 months' previous notice. Government may also determine it, by giving six months' notice, should the Company fail to observe their obligations, or the line be worked at a loss for not less than three half-years continuously. On the expiration of the contract, Government are to take possession of the railway and all its appliances, repaying at par to the Company their capital of £1,000,000 and any further capital raised by them and paid to Government.

**Power of Company to surrender contract.**—Nil.

**Terms of working.**—After deducting working expenses (which may include any single item of capital expenditure, not exceeding Rs. 1,000 classed as a 'Minor Work,' subject to a maximum charge on such account of Rs. 15 per mile of line open in each half-year, and a payment of Rs. 40 for every mile of line open to traffic to be made half-yearly to Government) the net receipts to be applied in payment to Government of—the equivalent in rupees of interest at 3 per cent. on £1,000,000, the Company's capital, at 4½ per cent. on £425,000, the irredeemable debenture stock of the old Company and at 3½ per cent. on the debenture stock issued and upon the principal moneys owing in respect of advances made for the Pamban branch and 3 per cent. on the net expenditure shown by the capital advance, stores and capital accounts. After deducting the equivalent in rupees of the sums referred to above the residue, if any, to be divided between Government and the Company in the ratio of the respective capital amounts contributed by each.

**Rates and fares.**—Certain maxima and minima have been fixed within which the Company are permitted to vary rates.

##### Statistics of working—

Calendar year.	TABLE I.							TABLE II*.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Company's share of net traffic receipts.	Gain or loss to the State.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	
1861	...	...	...	...	...	...	...	77	47·45
1862	...	...	...	...	...	...	...	61	44·43
1863	...	...	...	...	...	...	...	74	44·60
1864	...	...	...	...	...	...	...	69	57·55
1865	...	...	...	...	...	...	...	79	49·53
1866	...	...	...	...	...	...	...	106	49·28
1867	...	...	...	...	...	...	...	86	49·66
1868	...	...	...	...	...	...	...	90	48·64
1869	...	...	...	...	...	...	...	84	64·44
1870	...	...	...	...	...	...	...	84	62·10
1871	...	...	...	...	...	...	...	84	55·61
1872	...	...	...	...	...	...	...	87	56·87
1873	...	...	...	...	...	...	...	120	49·99
1874	...	...	...	...	...	...	...	101	60·81
1875	...	...	...	...	...	...	...	96	48·16
1876	...	...	...	...	...	...	...	90	53·27
1877	...	...	...	...	...	...	...	107	50·88
1878	...	...	...	...	...	...	...	102	66·65

\* Includes the Pondicherry railway.



APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 20</sup> <sub>Sub-heads (a) to (f)</sub> SOUTH INDIAN RAILWAY SYSTEM—*contd.*20 (a) South Indian railway proper (3' 3½" gauge)—*contd.*Statistics of working—*contd.*

Calendar year.	TABLE I.*							TABLE II.†	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Company's share of net traffic receipts.	Gain or loss to the State.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	
1879	4,41,96,588	33,62,067	10,63,253	2.40	20,95,206	...	-10,31,933	105	68.99
1880	4,46,77,075	35,59,593	9,30,017	2.08	21,28,643	...	-11,98,626	106	73.87
1881	4,52,22,780	37,56,698	12,37,726	2.73	21,30,568	...	-8,92,842	109	77.04
1882	4,53,69,280	37,58,714	14,02,328	3.09	21,40,871	...	-7,36,543	109	62.69
1883	4,58,97,614	38,69,668	18,22,334	2.91	21,46,579	...	-8,24,245	112	65.83
1884	4,67,51,662	41,89,049	14,92,491	3.19	25,40,471	...	-10,47,980	122	64.18
1885	4,93,74,900	45,60,126	15,81,714	3.20	27,02,145	...	-11,20,431	132	65.12
1886	5,15,40,172	49,20,176	14,75,914	2.86	28,80,496	...	-15,04,582	143	69.78
1887	5,40,64,389	51,79,324	15,86,729	2.89	31,25,720	...	-15,38,991	148	68.20
1888	5,57,91,978	55,58,683	16,31,692	2.92	33,80,067	...	-17,48,365	159	68.98
1889	6,25,01,638	59,39,378	17,63,111	2.82	35,29,995	...	-17,66,824	167	70.11
1890	7,27,15,494	64,25,510	26,67,305	3.66	35,19,564	1,43,341	-9,95,600	181	57.50
1891	7,72,11,805	70,36,756	23,58,724	3.05	35,89,736	...	-12,31,012	184	65.47
1892	7,82,83,761	77,14,996	27,77,005	3.55	39,51,093	...	-11,74,088	187	63.01
1893	7,63,31,043	80,92,415	30,34,332	3.98	38,58,152	...	-8,28,820	149	61.25
1894	7,64,13,362	80,46,559	32,83,865	4.30	42,81,812	1,06,449	-11,04,396	148	58.99
1895	7,68,38,604	89,14,947	38,96,937	5.07	42,77,578	2,55,271	-6,35,862	165	56.13
1896	7,67,63,325	89,45,581	40,27,499	5.25	40,60,677	2,51,567	-2,84,755	165	54.89
1897	7,66,46,958	91,81,409	42,96,757	5.61	38,76,142	3,25,390	+ 95,225	170	53.01
1898	7,45,21,873	84,67,581	38,35,527	5.15	37,49,571	3,06,473	-2,20,467	157	54.50
1899	7,58,82,623	84,74,462	39,83,540	5.28	36,99,891	2,45,608	+ 98,011	159	52.41
1900	7,69,70,119	89,04,825	43,97,986	5.71	36,77,879	3,68,408	+ 3,51,629	166	50.27
1901	8,23,78,918	1,01,44,857	54,15,176	6.57	37,23,736	4,58,540	+ 12,31,900	188	46.17
1902	8,49,97,226	1,05,08,282	57,14,254	6.72	39,64,967	4,80,185	+ 12,69,702	189	45.60
1903	8,69,72,143	1,23,82,517	73,77,644	8.48	40,28,068	6,96,450	+ 26,53,126	203	39.99

## 20 (b) Karaikkal-Peralam railway (3' 3½" gauge)—

The line is partly in British and partly in French territories and was constructed with the object of placing the town and port of Karaikkal in communication with the railway system of Southern India.

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Karaikkal to Peralam	July 1895	14-3-98	14.65	14.65

## Details of construction—

*Permanent-way.*—13.20 miles are laid with 41 lb. steel rails on wooden sleepers and the remainder with 41 lb. steel rails on steel transverse sleepers.

*Ballast.*—The line is ballasted with laterite.

*Fencing.*—The line is only fenced at stations.

*Curves.*—There are no curves with a radius of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 200.

## Terms of contract—

The railway is worked under the following contract:—

*Contract of*—27th March 1902 (between the Government of the French Settlements in India and the South Indian Railway Company) for working.

The general conditions of the contract are as follows:—

*Government aid.*—The land occupied by the portion in British territory has been made over by the British Government free of cost on condition that the proprietary rights remain vested in the British Government.

*Currency of contract.*—The contract is terminable by either party giving twelve-months' notice to expire on the 30th June or 31st December in any year.

*Terms of working.*—The line is worked on the same percentage of working expenses to gross earnings as obtains on the undertaking, plus 5 per cent. on the gross receipts of the line for the use of the main line rolling-stock and Rs. 1,500 per annum for interest on the main line Revenue stores and Stores and workshop buildings and machinery. If at any time the Company can show that the working of the railway involves an actual loss on the percentage terms, the Government of the French Settlements in India has to make good the loss.

*Rates and fares.*—Same as on the South Indian Railway system.

\* Includes the Tinnivelly-Quilon (Travancore) railway (British section).

† Includes the Pondicherry railway.

‡ The gain in 1900 was due to the opening of 131 miles of new line.

Appendix 38.  
History of railways.

APPENDIX 38—*concl'd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 20</sup> <sub>Sub-heads (a) to (f)</sub> SOUTH INDIAN RAILWAY SYSTEM—*concl'd.*

20 (b) Karaikkal Peralam railway (3' 3½" gauge)—*concl'd.*

Statistics of working—

Calendar year	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1895	4,759	...	...	...	...	...
1896	59,009	...	...	...	...	...
1897	5,93,082	...	...	...	...	...
1898	7,21,665	19,738	7,855	1.09	27	60.19
1899	7,25,344	27,685	9,037	1.25	37	67.36
1900	7,29,715	24,608	9,478	1.30	32	61.48
1901	7,23,786	30,450	19,314	1.84	40	56.28
1902	7,23,786	32,736	14,619	2.02	43	55.34
1903	7,23,786	38,933	19,864	2.74	51	48.98

20 (c) Pondicherry railway (3' 3½" gauge)—

The line is in French territory and was constructed with the object of placing the town and port of Pondicherry in communication with the railway system of Southern India and of developing the resources of the French territory.

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Left bank of Gingee river to Pondicherry	June 1878	15-12-79	7.85	7.85

Details of construction—

*Permanent-way.*—0.55 mile is laid with 50 lb. bull headed steel rails on pot sleepers, 8.53 miles with 41 lb. steel rails on wooden sleepers and the remainder with 40 lb. iron rails on wooden sleepers.

*Ballast.*—The line is ballasted with stone.

*Fencing.*—The line is fenced with aloe and wire fencing.

*Curves.*—There is only 0.28 mile of curves with radii of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 200.

Terms of contract—

The railway is worked under the following contract :—

*Contract of*—30th December 1890 (as renewed, between the South Indian Railway Company and the Pondicherry Railway Company) for working the line.

The general conditions of the contract are as follows :—

*Currency of contract.*—The contract will be terminable by either party, on giving 6 months' notice expiring on the 31st December in any year.

*Terms of working.*—The line is worked for the same percentage of gross receipts as obtains on the undertaking including the Pondicherry railway.

*Rates and fares.*—Same as on the South Indian railway.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay.	Gross earnings.	Net traffic earnings.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.			
1879 to 1889	Information not available.					
1890	5,68,543	...	...	...	...	...
1891	5,68,543	20,106	20,107	3.54		
1892	5,68,543	15,341	15,341	2.70		
1893	5,68,543	18,014	18,014	3.17		
1894	5,68,543	27,958	18,425	3.24		
1895	5,68,543	50,328	22,711	3.89		
1896	5,68,543	39,881	17,776	3.13		
1897	5,68,543	38,592	17,169	3.02		
1898	5,68,543	31,890	14,894	2.58		
1899	5,68,543	45,805	21,627	3.80		
1900	5,68,543	59,583	23,193	4.08		
1901	5,68,543	60,174	32,366	5.69		
1902	5,68,543	70,478	37,960	6.68		
1903	5,68,543	73,416	44,258	7.78		

Included with the South Indian railway proper.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1903.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number  $\frac{\text{Main head 20}}{\text{Sub-heads (a) to (f)}}$  SOUTH INDIAN RAILWAY SYSTEM—*contd.*20 (d) Tanjore District Board railway (3' 3 $\frac{1}{2}$ " gauge).—

The money for this railway was raised by the imposition, with the concurrence of the inhabitants or their representatives on the District Board, of a special cess of 3 pies in the rupee on all lands which would be served by the railway or benefited by its construction. It was entirely a new departure, and has opened the way for the provision of railways for which Government are unable to find the money, either by the District Board itself raising the capital when the cess is sufficient for this purpose, or by guaranteeing a company.

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Mayavaram to Tiruvallur . . . . .	10-8-91	2-4-94	54.08		1894	54
Tiruvallur to Mutupet . . . . .	June 1890				1895	54
Mutupet to Pattukkottai . . . . .	15-11-00	20-10-03	17.08		1896	54
Pattukkottai to Arantangi . . . . .	15-11-00	31-12-03	28.85		1897	54
Total open mileage . . . . .	...	...	...	99.46	1898	54
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>						
Thambikkottai salt siding . . . . .	15-11-00	...	0.68		1899	54
Adirampatnam salt siding . . . . .		...	1.00		1900	54
Arantangi quarry branch . . . . .		30-6-04*	3.90		1901	54
Total Lines under construction . . . . .	...	...	...	5.53	1902	71
GRAND TOTAL . . . . .	...	...	...	104.99	1903	99

## Details of construction—

**Permanent-way.**—Twenty-seven miles are laid with 41 lb. steel rails on wooden sleepers and the remainder with 40 lb. iron rails on wooden sleepers.

**Ballast.**—The line is ballasted with laterite.

**Fencing.**—The line is only fenced at stations.

**Curves.**—There are no curves with a radius of less than 1,000 feet.

**Gradients.**—The ruling gradient is 1 in 200 except in one place where it is 1 in 160.

**Terms of contract—**

The railway is worked with the following contract:—

**Contract of—**22nd July 1897 (between the Secretary of State and the South Indian Railway Company) for working.

The general conditions of the contract are as follows:—

**Government aid.**—Land was provided free of cost.

**Terms of contract.**—The funds for the Mayavaram-Mutupet section were in the first instance provided in equal proportions by the Government of Madras from Provincial Revenues and by the Tanjore District Board from its railway guaranteed fund created by a special local cess. On the 1st January 1900, the Tanjore District Board took over the Government section and became sole owners, the purchase money, Rs. 12,84,720, being treated as a loan at 4 per cent. per annum. The extension of the line is being carried out by the South Indian Railway Company at the cost of the Tanjore District Board.

**Currency of contract.**—Contract to remain in force until either party gives 12 months' notice expiring on the 31st December in any year. The Government of India reserve the right of taking over the whole of the railway at any time, on 12 months' notice, by assuming liability for any debentures which the District Board may have issued, and by repayment of any further amounts which it may have spent out of its railway guaranteed fund. Under ordinary circumstances, this condition will not be enforced up to 31st December 1920 (Government of India No. 303 R. C., dated 5th March 1898).

**Terms of working.**—The line is worked for the same percentage of gross receipts as obtains on the undertaking (which may include any single item of capital expenditure, not exceeding Rs. 1,000 classed as a "Minor Work," subject to a maximum charge on such account of Rs. 15 per mile of line open in each half-year) plus 5 per cent. on the gross receipts of the line for use of rolling-stock, and in addition all other charges properly debitable to revenue.

**Rates and fares.**—To be agreed upon from time to time between Government and the Company within the maxima and minima in force on the undertaking.

\* Probable date of opening.

Appendix 38.  
History of railways.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 20</sup> SOUTH INDIAN RAILWAY SYSTEM—contd.  
Sub-heads (a) to (f)

20. (d) Tanjore District Board railway (3' 3½" gauge)—contd.

Statistics of working—

Calendar year.	TABLE I.						TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Gain or loss to the State.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1890	61,509	...	...	...	1,230	-1,230	...	...
1891	4,82,149	...	...	...	10,873	-10,873	...	...
1892	13,84,423	...	...	...	37,331	-37,331	...	...
1893	21,62,957	...	...	...	70,947	-70,947	...	...
1894	23,79,123	1,63,460	62,942	2.65	1,00,701	-37,759	103	61.50
1895	24,47,438	2,42,024	93,669	3.83	95,700	-2,031	86	61.30
1896	24,49,630	2,47,772	93,361	4.06	97,861	+1,500	88	59.90
1897	24,91,854	2,66,081	1,11,496	4.47	99,159	+12,337	95	58.10
1898	24,94,905	2,46,199	77,627	3.11	99,843	-22,316	88	68.47
1899	24,97,355	2,42,016	96,798	3.88	99,845	-3,047	86	60.01
1900	26,50,776	2,32,280	97,782	3.69	1,02,734	-4,952	83	32.02
1901	32,17,511	2,90,637	1,35,765	4.22	1,36,831	-3,076	103	53.29
1902	38,18,302	3,08,879	1,46,764	3.84	1,63,157	-16,393	108	52.48
1903	45,70,190	3,90,747	2,09,167	4.58	1,97,476	+11,691	106	46.47

20. (e) Tinnevelly-Quilon (Travancore) (British section) (3' 3½" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.	1902	Miles.
Tinnevelly to Kallidaikurichi	21-4-99	1-6-02	19.05		1902	19
Kallidaikurichi to the British frontier near Shencottah	21-4-99	1-8-03	30.45		1903	49
<b>TOTAL OPEN MILEAGE</b>	...	...	...	<b>49.50</b>		
<b>LINE UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>						
Under construction in the British territory	21-4-99	...	0.91			
<b>Total line under construction</b>	...	...	...	<b>0.91</b>		
<b>GRAND TOTAL</b>	...	...	...	<b>50.41</b>		

Details of construction—

**Permanent-way.**—The line is laid with 50 lb. bull headed steel rails on cast iron pot sleepers except 0.27 mile in the Tinnevelly station yard, which is laid with 40 lb. iron rails on wooden sleepers.

**Ballast.**—The line is ballasted with stone.

**Fencing.**—The line is only fenced at stations.

**Curves.**—There are no curves with a radius of less than 1,000 feet.

**Gradients.**—The ruling gradient is 1 in 150 except on the Kila Kadaiyam-Ambasamudram section, where it is 1 in 100.

Terms of contract—

The Travancore branch is worked under the following contract :—

**Contract of**—27th June 1901 (between the Secretary of State and the South Indian Railway Company) for working.

The general conditions of the contract are as follows :—

**Government aid.**—Government guarantee interest on the debentures to be raised by the South Indian Railway Company for the construction of the line.

**Currency of contract.**—The contract will remain in force until the principal contract for working the undertaking shall terminate.

**Terms of working.**—The branch is to be worked on the same percentage of working expenses to gross earnings as obtains on the undertaking subject to the maintenance for the first two years after opening being charged to capital. After meeting interest charges, the residue of net earnings to be divided between the Secretary of State and the Company in the

APPENDIX 38—*contd.*Appendix 38.  
History of railways.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 20</sup> <sub>Sub-heads (a) to (f)</sub> SOUTH INDIAN RAILWAY SYSTEM—*concl'd.*20. (e) Tinnevelly-Quilon (Travancore) (British section) (3' 3½" gauge)—*concl'd.*Terms of contract—*concl'd.*

proportions in which the residue of net revenue receipts of the undertaking are divisible under the principal contract. If the net earnings are not sufficient to meet interest charges of any half-year, the deficiency attributable to the section of railway within the Native State of Travancore to be borne by the Secretary of State, and that attributable to the section of railway outside the Native State to be borne by the Secretary of State and the Company in the proportions in which the residue of such net revenue receipts would have been divisible between them had there been any such residue.

As between Government and the Native State of Travancore, the latter has under-written the guarantee of interest to the extent of the capital required for the construction of the line lying in its State, any excess of net earnings over interest charges attributable thereto being made over to and any deficiency met by the Native State.

Statistics of working—

Calendar year.	TABLE I	TABLE II	
		Earnings per mile per week.	Proportion of expenses to earnings.
1902	} Included with the South Indian railway proper	Rs.	
1903		81	41.84
		101	41.18

20. (f) Tinnevelly-Quilon (Travancore) Native state section (3' 3½" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
Open in Travancore State	15-3-99	1-8-03	Miles. 0.43	Miles.		
Total open mileage	...	...		0.43		
LINE UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION.						
Quilon to Ponalur Ponalur to the Frontier of the Travancore State near Shencottah	21-4-99	*	57.62	57.62	1903	1
GRAND TOTAL	...	...	...	58.05		

The line is to be worked on the same terms as apply to the Tinnevelly-Quilon (Travancore) (British section).

Number <sup>Main head 21</sup> <sub>Sub-heads (a) to (j)</sub> SOUTHERN MAHRATTA RAILWAY SYSTEM—

Lines comprising system.—The Southern Mahratta railway system is made up of—

	Open line.	Under construction.	Total.
	Miles.	Miles.	Miles.
(a) Southern Mahratta railway (3' 3½" gauge)	1,042.04	...	1,042.04
(b) Birur-Shimoga railway (3' 3½" gauge)	37.92	...	37.92
(c) Guntakal-Mysore frontier railway (3' 3½" gauge)	119.50	...	119.50
(d) Hindupur (Yesvantpur-Mysore frontier) railway (3' 3½" gauge)	51.35	...	51.35
(e) Kolhapur railway (3' 3½" gauge)	29.27	...	29.27
(f) Mysore-Nanjangud railway (3' 3½" gauge)	15.80	...	15.80
(g) Mysore section (Southern Mahratta) (3' 3½" gauge)	296.22	...	296.22
(h) West of India Portuguese railway (3' 3½" gauge)	51.11	...	51.11
(i) Bellary-Bayadrug railway (3' 3½" gauge)	...	33.00	33.00
(j) Hospet-Kottur railway (3' 3½" gauge)	...	44.10	44.10
Total	1,643.21	77.10	1,720.31

Running powers—

Home line over Foreign line.—

Tadepalli to Bez wada, Madras (North-East line) railway . . . . . 2.99

\* Probable date of opening, Quilon to Ponalur, 1st June 1904, and Ponalur to Shencottah, 1st August 1904.



## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

(For Index see page 188.)

Number <sup>Main head 21</sup> <sub>Sub-heads (a) to (g)</sub> SOUTHERN MAHRATTA RAILWAY SYSTEM—contd.

## 21 (a) Southern Mahratta railway proper (3' 3½" gauge)—concl'd.

## Terms of contracts—concl'd.

27th February 1889.—Contract supplemental to those of 1882, 1885 and 1887, for completion and working of the Bellary-Kistna railway.

The general conditions of the contracts are as follows:—

*Government aid.*—Interest in sterling on share capital at 3½ per cent. is guaranteed and an additional ¼ per cent. until 31st December 1890.*Terms of contract.*—The contract provides that the Company raise £5,000,000, and that any further moneys required shall be supplied by the Secretary of State.*Currency of contracts.*—The contract is current for a period of 50 years. Government may however determine the contract after 25, 35 or 45 years (*i. e.*, on 30th June 1907, 30th June 1917, or 30th June 1927), on one year's previous notice; or on six months' notice given at any time if the company fail to observe their obligations, or the line is worked at a loss. Upon determination of the contract by efflux of time or by notice Government is to repay to the Company the amount of the par value of the share capital paid to Government.*Power of Company to surrender contracts.*—The Company may determine the contracts on the 30th June in any year, by giving one year's previous notice.*Terms of working.*—Up to the 31st December 1890 after deducting working expenses (which may include any single item of capital expenditure, not exceeding Rs. 1,000, or if exceeding Rs. 1,000 but not exceeding Rs. 2,000, classed as a 'Minor work' subject to a maximum charge on such account of Rs. 23,000 in each half year and a payment of Rs. 40 for every mile of line open to traffic to be made half-yearly to Government for supervision) the net receipts belonged to government unless one-fourth part of the same exceeded the extra guarantee of ½ per cent., in which case the amount of the excess was payable to the Company. After 31st December 1890, three-fourths of the net receipts go to Government and one-fourth to the Company.*Rates and fares.*—To be fixed from time to time by the Company with the approval of Government.

## Statistics of working—

TABLE I.								TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Company's share of net traffic receipts.	Gain or loss to the State.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.		
1884	2,77,07,721	2,13,059	—18,131	...	14,77,196	...	—14,95,327	50	108.51
1885	3,68,00,076	8,66,226	1,40,238	0.98	19,31,340	...	—18,41,102	63	83.80
1886	6,15,07,620	16,34,918	4,88,392	0.79	26,43,220	...	—21,54,828	92	69.83
1887	7,87,73,165	30,32,417	10,03,624	1.27	34,64,086	...	—24,60,462	87	66.01
1888	8,68,84,288	36,38,616	8,85,493	1.01	31,89,503	...	—23,04,012	86	75.70
1889	9,18,52,133	40,31,804	9,61,618	1.04	32,01,520	41,700	—23,71,602	88	76.15
1890	9,32,85,016	44,71,095	9,14,664	0.98	31,39,444	30,036	—22,54,816	85	78.19
1891	9,42,66,041	47,60,567	16,29,919	1.72	35,89,851	2,58,845	—22,18,777	88	65.76
1892	9,61,10,671	44,33,107	13,47,999	1.40	31,65,511	3,43,266	—21,80,778	82	68.69
1893	9,45,71,662	57,25,918	23,16,567	2.45	35,42,479	5,34,949	—17,60,861	106	59.60
1894	9,51,44,496	59,50,542	20,18,567	2.12	45,87,598	5,57,556	—31,26,587	108	65.44
1895	9,56,02,591	64,68,011	25,88,948	2.71	46,80,290	5,22,407	—26,13,740	119	59.65
1896	9,60,94,788	67,12,230	29,11,959	3.03	44,45,740	7,28,698	—22,57,479	124	56.59
1897	9,67,12,898	64,92,310	27,82,645	2.88	42,62,886	6,97,133	—21,77,394	119	56.96
1898	9,74,67,550	50,61,871	15,02,414	1.54	41,10,275	5,44,277	—31,52,138	93	70.32
1899	9,78,60,569	58,70,816	18,95,002	1.94	40,10,557	3,85,332	—25,00,387	108	67.72
1900	9,82,62,274	64,06,526	22,43,366	2.32	40,03,119	5,81,807	—23,00,560	119	64.69
1901	9,84,64,118	58,29,471	17,31,134	1.75	40,42,851	4,92,728	—28,04,445	107	70.30
1902	9,85,18,731	64,59,686	23,09,908	2.34	40,79,645	5,03,168	—22,72,905	119	64.24
1903	9,88,51,177	66,72,302	25,50,721	2.58	40,94,983	6,01,138	—21,45,393	128	61.77

21 (b) Birur-Shimoga railway (3' 3½" gauge)—  
Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Birur to Shimoga	12-8-96	1-12-99	37.92	37.92

## Details of construction—

*Permanent-way.*—The permanent-way consists of 41½ lb. steel rails laid on wooden sleepers. The Bhadra bridge is laid with 50 lb. steel rails.*Ballast.*—The line is ballasted throughout.*Fencing.*—The line is unfenced except for a very short length.*Curves.*—There are no curves with a radius less than 1,000 feet.*Gradients.*—The ruling gradient is 1 in 89.



Appendix 38.  
History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*  
(For Index see page 168.)

Number <sup>Main head 21</sup> <sub>Sub-heads (a) to (j)</sub> SOUTHERN MAHRATTA RAILWAY SYSTEM—*contd.*

21 (b) Birur-Shimoga railway (3' 3½" gauge)—*concl'd.*

Terms of contract—

The Hindupur and Birur-Shimoga railways are worked under the following contract:—

Contract of—2nd December 1899 (between His Highness the Maharaja of Mysore and the Southern Mahratta Railway Company) for maintenance and working.

The general conditions of the contract are as follows:—

Government aid.—The lines are the property of the Mysore State.

Currency of contract.—Either party may determine the contract, on giving twelve months' notice, on the 31st December 1904, or on the 1st January or 1st July in any year thereafter. If not determined sooner, the agreement terminates, without prior notice, on the date the Mysore contract of the 31st August 1887 terminates. On the determination of the contract, the Mysore Government resume possession of the railway and take over the liabilities incurred by the Company on behalf of the railway and the working stores belonging to the railway at a valuation.

Terms of working.—The working expenses of the system excluding expenditure on New Minor Works are divided between these railways and the others, comprising the system in proportion to their gross earnings. The Company retain the share attributable to these lines (which include any single item of capital expenditure not exceeding Rs. 1,000 or if exceeding Rs. 1,000 but not exceeding Rs. 2,000, classed as a 'Minor Work' subject to a maximum charge on such account of Rs. 20 per mile of line open in each half-year), and pay the residue to the Mysore Durbar.

Rates and fares.—To be fixed from time to time by the Company with the approval of Government.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1896	2,90,226	...	...	...	...	...
1897	6,27,263	...	...	...	...	...
1898	15,70,079	...	...	...	...	...
1899	20,85,475	6,186	1,881	0.09	37	69.59
1900	22,94,457	66,227	24,219	1.06	34	63.43
1901	24,01,338	62,058	16,993	0.71	31	72.62
1902	24,05,667	64,606	23,367	0.97	33	63.83
1903	24,07,802	61,520	24,206	1.01	31	60.65

## 21 (c) Guntakal-Mysore frontier railway (3' 3½" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
Guntakal to Dharmavaram	June 1889	1-3-92	Miles. 62.95	Miles. 119.50	1892	Miles. 63
Dharmavaram to Hindupur	26-1-91	23-4-93	49.28		1893 to 1903	119
Hindupur to Mysore Frontier	August 1891	17-9-93	7.27			
TOTAL	...	...	...			

Detail of construction—

Permanent-way.—The permanent way consists of 41½ lb. flat-footed steel rails laid on steel sleepers.

Ballast.—The line is ballasted throughout with stone.

Bridges.—See Appendix 36.

Fencing.—The line is partially fenced with wire.

Curves.—The sharpest curve has a radius of 600 feet.

Gradients.—The ruling gradient is 1 in 100.

Terms of contract—

The Guntakal-Mysore Frontier railway is worked under the following contract:—

Contract of—21st August 1898 (between the Secretary of State and the Southern Mahratta Railway Company) for construction and working.

The general conditions of the contract are as follows:—

Government aid.—The line is the property of Government.

Currency of contract.—The same as in the case of the Southern Mahratta railway.

Power of Company to surrender contract.—The same as in the case of the Southern Mahratta railway.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*  
[For Index see page 133.]Number <sup>Main head 21</sup> <sub>Sub-heads (a) to (j)</sub> SOUTHERN MAHRATTA RAILWAY SYSTEM—contd.

21 (c) Guntakal-Mysore frontier railway (3' 3½" gauge)—concl'd.

Terms of contract—concl'd.

*Terms of working.*—The working expenses of the entire system of railways worked by the Company (including this railway) exclusive of Government supervision charges of the Southern Mahratta Railway and the Mysore section are divided between this railway and the other railways worked, in proportion to their gross receipts. This railway's share of the working expenses is retained from its gross receipts. The residue is paid to Government.

*Rates and fares.*—To be fixed from time to time by the Company with the approval of Government.

Statistics of working—

Calendar year.	TABLE I.						TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Gain or loss to the State.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	
1893	58,39,806	1,97,874	78,955	1.95	4,67,933	-3,88,978	38	60.00
1894	58,58,414	3,68,951	1,27,874	2.18	2,34,529	-1,06,655	59	65.34
1895	58,71,739	4,39,329	1,81,657	3.09	2,84,639	-52,982	71	58.65
1896	59,00,158	4,80,992	2,10,690	3.57	2,35,666	-24,926	77	56.20
1897	59,02,498	6,38,278	2,75,983	4.68	2,36,000	+39,983	103	56.76
1898	58,98,866	4,25,702	1,32,471	2.25	2,36,026	-1,03,555	69	68.88
1899	58,98,608	3,84,829	1,28,459	2.18	2,35,996	-1,07,537	62	66.62
1900	59,00,046	4,36,116	1,57,837	2.68	2,35,960	-78,123	70	63.81
1901	59,02,588	4,47,813	1,36,659	2.32	2,36,115	-99,456	72	69.45
1902	59,04,714	4,73,972	1,74,320	2.95	2,36,107	-61,787	76	63.22
1903	59,07,192	4,96,481	1,97,075	3.24	2,36,227	-39,152	80	60.31

21 (d) Hindupur (Yesvantpur-Mysore frontier) railway (3' 3½" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.	Miles.	Miles.
Yesvantpur to Dodballapur	March 1890	15-12-92	19.98	51.35	1892.	20
Dodballapur to Mysore Frontier		17-9-93	31.42		1893 to 1903	51
TOTAL	...	...	...	51.35		

Details of construction—

*Permanent-way.*—The rails on the ghat section, 11 miles in length, are of the State railway type, weighing 50 lb. to the yard and 41½ lb. to the yard on the remainder of the line. The sleepers are of Mysore teak throughout.

*Ballast.*—The line is ballasted throughout.

*Fencing.*—The line is fenced throughout, mostly with vegetable fencing.

*Curves.*—The sharpest curve has a radius of 603 feet.

*Gradients.*—The ruling gradient is 1 in 100 with a 1 in 89 gradient on the ghat section.

*Terms of contract.*—See under Birur-Shimoga railway.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1892	24,41,741	57,685	22,708	0.93	38	60.60
1893	24,46,186	1,61,704	58,504	2.32	61	65.06
1894	24,31,989	1,92,159	79,886	3.30	72	58.43
1895	24,19,698	2,23,800	99,592	4.16	84	55.50
1896	23,94,762	2,69,527	1,18,358	4.77	101	56.09
1897	24,79,210	1,80,081	56,430	2.26	67	68.66
1898	24,98,316	1,49,363	50,528	2.02	56	66.17
1899	24,98,162	1,88,183	67,135	2.69	70	64.32
1900	24,98,047	1,97,788	60,724	2.43	74	68.30
1901	24,94,739	2,13,486	77,908	3.12	80	63.51
1902	24,97,811	2,42,695	96,159	3.85	91	60.38
1903	24,97,206					

Appendix 38.

APPENDIX 38—contd.

History of railways.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 21</sup> <sub>Sub-heads (a) to (j)</sub> SOUTHERN MAHRATTA RAILWAY SYSTEM—contd.

21 (c) Kolhapur railway (3' 3 3/4" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Kolhapur to Miraj . . . . .	February 1888	21-4-91	29.27	29.27

Details of construction—

- Permanent-way.*—The permanent-way consists of 41 1/2 lb. flat-footed steel rails laid on steel sleepers.
- Ballast.*—The line is ballasted throughout.
- Fencing.*—The line is unfenced except for a very short length.
- Curves.*—There are no curves with a radius of less than 1,000 feet.
- Gradients.*—The ruling gradient is 1 in 100.

Terms of contract—

The Kolhapur railway is worked under the following contract:—

*Contract of*—17th July 1891 (between the Kolhapur Durbar and the Southern Mahratta Railway Company) for maintenance and working.

The general conditions of the contract are as follows:—

*Government aid.*—The line is the property of the Kolhapur State.

*Currency of contract.*—The contract may be terminated, upon six months' notice, by either party.

*Terms of working.*—The working expenses of the system excluding Government supervision charges and New Minor Works are divided between this railway and the others comprising the system in proportion to their gross earnings. The Company retain the share attributable to these lines (which include any single item of capital expenditure not exceeding Rs. 1,000, or if exceeding Rs. 1,000 but not exceeding Rs. 2,000, classed as a 'Minor Work' subject to a maximum charge on such account of Rs. 20 per mile of line open in each half-year), and pay the residue to the Kolhapur Durbar.

*Rates and fares.*—The same as in force on the Southern Mahratta railway.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1889	13,59,602	...	...	...	...	...
1890	21,37,699	...	...	...	...	...
1891	23,16,183	58,981	20,866	0.99	60	64.26
1892	23,81,946	90,993	29,182	1.23	55	67.72
1893	23,21,687	1,88,096	49,991	2.15	78	57.87
1894	23,05,817	1,28,390	43,632	1.89	82	64.64
1895	23,69,206	1,21,147	51,006	2.15	80	57.90
1896	23,05,912	1,21,655	54,305	2.35	80	55.36
1897	23,24,837	94,630	41,981	1.80	83	55.04
1898	23,24,807	78,271	24,201	1.04	52	69.08
1899	23,24,807	99,195	33,936	1.46	66	65.74
1900	23,24,807	1,24,215	44,375	1.98	82	63.87
1901	23,24,807	1,14,114	35,750	1.54	75	62.55
1902	23,25,587	1,23,913	46,497	2.00	81	62.55
1903	23,26,188	1,21,957	43,053	2.07	80	60.60

21 (f) Mysore-Nanjangud railway (3' 3 3/4" gauge)—

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Mysore to Nanjangud . . . . .	...	1-12-91	15.04		1891 to 1898	15
Nanjangud station to Nanjangud town . . . . .	...	12-7-89	0.76		1899 to 1903	16
TOTAL . . . . .	...	...	...	15.80		

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 21</sup> <sub>Sub-heads (a) to (j)</sub> SOUTHERN MAHRATTA RAILWAY SYSTEM—contd.

21 (f) Mysore-Nanjangud railway (3' 3½" gauge)—concl'd.

## Details of construction—

*Permanent-way.*—The permanent-way consists of 41½ lb. steel rails laid on wooden sleepers.*Ballast.*—The line is ballasted throughout.*Fencing.*—The line is partially fenced with wire.*Curves.*—The sharpest curve has a radius of 700 feet.*Gradients.*—The ruling gradient is 1 in 89.

## Terms of contract—

The Mysore-Nanjangud railway is worked under the following contract:—

*Contract of*—14th December 1899 (between His Highness the Maharaja of Mysore and the Southern Mahratta Railway Company) for working.

The general conditions of the contract are as follows:—

*Government aid.*—The line is the property of the Mysore State.*Currency of contract.*—The contract is terminable on the 1st January or 1st July in any year, on six months' notice by either party. If not terminated sooner, this agreement terminates on the date on which the Mysore contract of the 31st August 1887 terminates. On determination, the Company make over to the Mysore Government the railway and works and pay to that Government all moneys on account of the railway, the Government indemnifying the Company against all debts and liabilities incurred on account of the railway then subsisting. The working stores, if mutually agreed, to be taken over by the Mysore Government at a valuation.*Terms of working.*—After deduction of expenditure on new minor works, which is debited to each railway direct, from the total working expenses of the Company's railway system, the balance is divided between this railway and the other railways comprised in the Company's system in the proportion which the gross receipts of this railway bear to the gross receipts of such other railways, and the sum so ascertained, together with any single item of capital expenditure not exceeding Rs. 1,000, or if exceeding Rs. 1,000, but not exceeding Rs. 2,000, classed as a 'Minor Work' subject to a maximum charge on such account of Rs. 20 per mile of line open in each half-year, representing the working expenses of this railway is retained by the Company, and the residue paid to the Mysore Government.*Rates and fares.*—To be fixed by the Company with the approval of Government.

## Statistics of working—

TABLE I.					TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1892	5,92,414	16,478	6,168	1.03	21	62.60
1893	6,18,551	38,812	14,001	2.26	48	58.59
1894	6,08,095	37,448	12,866	2.13	47	65.65
1895	6,09,212	39,160	16,432	2.69	49	57.98
1896	6,09,681	39,823	17,125	2.81	50	56.45
1897	6,94,764	33,487	14,265	2.25	42	57.41
1898	6,43,821	31,493	10,124	1.57	40	67.85
1899	6,48,051	16,810	5,671	0.88	21	66.25
1899	6,53,741	30,860	11,357	1.74	38	63.20
1900	6,56,462	26,302	7,863	1.20	35	72.22
1901	6,56,462	29,870	10,938	1.67	36	63.38
1902	6,56,462	31,923	12,687	1.93	39	60.26
1903						

21 (g) Mysore Section (Southern Mahratta) (3' 3½" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
Mysore to Mandya	20-9-77	25-2-89	27.97	296.22	1881	58
Mandya to Channapatna		20-3-81	23.25		1882	86
Channapatna to Bangalore		1-2-81	34.75		1883	87
Bangalore to Tumkur	6-10-83	11-8-84	43.00		1884	140
Tumkur to Gubbi		26-12-84	11.00		1885	140
Gubbi to Birur	18-1-84	12-8-89	76.37		1886	140
Birur to Harihar		21-2-89	79.68		1887	140
	...	...	...		1888	140
	...	...	...		1889	140
TOTAL	...	...	...		to	296
				1903		

**Appendix 38.**  
History of railways.

**APPENDIX 38—contd.**

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 21</sup> **SOUTHERN MAHRATTA RAILWAY SYSTEM—contd.**

21 (g) <sup>Sub-heads (a) to (i).</sup> **Mysore Section (Southern Mahratta) (3' 3½" gauge)—concl'd.**

**Details of construction—**

*Permanent-way.*—The permanent-way consists mainly of 41½ lb. steel rails laid on wooden sleepers.

*Ballast.*—The line is ballasted throughout.

*Fencing.*—The line is only partially fenced with vegetable and wire fencing.

*Curves.*—The sharpest curve has a radius of 660 feet.

*Gradients.*—The ruling gradient is 1 in 100; and 1 in 70 between Bangalore and Mysore.

**Terms of contract—**

The Mysore section is worked under the following contract :—

*Contract of*—31st August 1887 (between the Secretary of State and the Southern Mahratta Railway Company) for construction, maintenance and working.

The general conditions of the contract are as follows :—

*Government and.*—Guarantee of interest in sterling at 4 per cent. on £ 1,200,000 debenture stock.

*Terms of contract.*—To meet the cost of constructing the Gubbi-Harihar extension, the Company raised £ 1,224,000, by the issue of debenture stock for the nominal amount of £ 1,200,000. The stock is redeemable on or after the 1st March 1936. The contract provides that the Company raise £1,224,000, and that any further moneys required be supplied by the Secretary of State. All moneys whatsoever received by or on behalf of the Company in respect of the undertaking are the absolute property of the Secretary of State during the continuance of this contract.

*Currency of contract.*—Government may determine the contract at any time, on six months' notice should the Company fail to observe their obligations, or the line be worked at a loss. It is also provided that should the Company's contract for the Southern Mahratta railway system be determined, then this contract will also be determined. On the termination of the contract, the Secretary of State, if so required by the Company, takes over all liabilities in respect of the debenture stock issued by the latter (which is not redeemable until the 1st March 1936).

*Power of Company to surrender contract.*—Nil.

*Terms of working.*—After deducting working expenses (which may include any single item of capital expenditure not exceeding Rs. 1,000, or if exceeding Rs. 1,000 but not exceeding Rs. 2,000, classed as a 'Minor Work' subject to a maximum charge on such account of Rs. 20 per mile of line open in each half-year) the net receipts are divided in proportion of three-fourths to Government and one-fourth to the Company.

*Rates and fares.*—To be fixed from time to time by the Company with the approval of Government.

**Statistics of working—**

Calendar year.	TABLE I.							TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Company's share of net traffic receipts.	Gain or loss to the State.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	
1879 . . . . .	7,98,213	...	...	...	23,960	...	-23,960	...	...
1880 . . . . .	21,37,736	...	...	...	68,908	...	-68,908	...	...
1881 . . . . .	36,56,345	1,31,525	59,753	1.47	98,912	...	-45,159	51	59.13
1882 . . . . .	45,95,058	2,68,390	1,03,495	2.25	1,68,939	...	-65,494	68	64.11
1883 . . . . .	57,69,057	3,02,895	99,675	1.73	2,19,351	...	-1,19,676	67	67.09
1884 . . . . .	62,64,620	3,61,448	1,65,479	2.64	2,41,052	...	-75,578	67	54.22
1885 . . . . .	64,89,346	4,33,954	2,07,784	3.20	2,51,750	...	-43,946	60	52.12
1886 . . . . .	71,35,111	4,69,274	1,05,385	1.48	5,57,104	...	-4,51,719	65	59.04
1887 . . . . .	91,36,438	5,13,734	1,41,198	1.55	6,70,864	...	-5,29,666	71	71.60
1888 . . . . .	1,25,76,692	5,70,657	52,295	0.42	6,94,210	...	-6,41,915	79	76.28
1889 . . . . .	1,24,24,093	8,96,273	2,22,034	1.54	7,07,500	47,964	-5,33,330	72	75.23
1890 . . . . .	1,47,11,610	11,86,318	2,61,700	0.02	6,48,733	52,831	-4,39,864	77	77.94
1891 . . . . .	1,50,76,285	13,24,525	4,43,717	2.94	6,54,850	96,004	-3,07,137	86	66.50
1892 . . . . .	1,46,36,205	13,99,463	4,47,906	3.06	7,29,621	1,01,305	-8,33,023	89	67.92
1893 . . . . .	1,46,42,217	16,83,203	6,74,705	4.61	7,70,439	1,64,670	-2,60,404	109	59.92
1894 . . . . .	1,47,60,293	14,45,412	4,76,156	3.23	8,38,525	1,43,566	-5,05,935	94	66.99
1895 . . . . .	1,49,22,452	15,76,231	6,30,769	4.23	8,70,947	1,23,096	-3,68,274	103	59.72
1896 . . . . .	8,51,08,257	15,84,981	6,76,873	4.48	8,21,588	1,71,768	-3,16,483	103	57.29
1897 . . . . .	1,51,99,757	19,80,019	7,95,147	5.23	7,75,708	1,80,992	-1,61,553	122	57.54
1898 . . . . .	1,55,07,319	13,92,851	4,13,421	2.67	7,38,461	1,66,986	-4,92,026	90	70.32
1899 . . . . .	1,56,75,418	10,60,469	3,29,033	2.10	7,21,117	76,861	-4,68,945	69	68.97
1900 . . . . .	1,58,70,510	13,76,391	4,71,201	2.97	7,18,200	1,11,070	-3,58,069	89	65.77
1901 . . . . .	1,60,14,879	14,33,240	4,07,791	2.55	7,22,224	1,07,697	-4,22,150	93	71.55
1902 . . . . .	1,60,76,009	15,97,046	5,58,082	3.47	7,21,062	1,16,979	-2,79,959	104	65.00
1903 . . . . .	1,62,34,903	15,35,270	5,82,298	3.59	7,20,000	1,46,896	-2,84,598	100	62.07

APPENDIX 38—*contd.*

[Appendices 4 (portion) 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 21</sup> <sub>Sub-heads (a) to (j)</sub> SOUTHERN MAHRATTA RAILWAY SYSTEM—*contd.*

## 21 (h) West of India Portuguese railway (3' 3½" gauge)—

The line was constructed with the object of connecting the British and Portuguese territories and of affording the Southern Mahratta country a harbour on the West Coast. The Southern Mahratta railway took over the working of the line as from the 1st July 1902.

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
Mormugao to Sonauli . . . . .	18-4-88	17-1-87	Miles. 41-00	Miles. 51-11	1887	Miles. 41
Sonauli to the Portuguese frontier . . . . .		3-2-88	10-11		1888 to 1902	51
TOTAL . . . . .	...	...	...	...	...	...

## Details of construction—

*Permanent-way.*—The permanent way throughout is of 62 lb. State railway type with ten sleepers to the rail. The sleepers used are creosoted pine, sal, teak and jamba.

*Ballast.*—The line is ballasted with laterite and blue stone.

*Tunnels.*—See Appendix 37.

*Fencing.*—The line is partially wire fenced.

*Curves.*—The sharpest curve has a radius of 720 feet.

*Gradients.*—The ruling gradient is 1 in 100 with 1 in 40 on the Ghat section.

## Terms of contracts—

The West of India Portuguese railway is worked under the following contracts:—

*Contracts of*—18th April 1881, modified by the contract of 19th December 1892 (between the Portuguese Government and the West of India Portuguese Railway Company) for the construction of a harbour at the Port of Mormugao and a railway from Mormugao to the Portuguese Frontier.

21st August 1902, between the Southern Mahratta Railway Company and the West of India Portuguese Railway Company for the maintenance and working of the railway from Mormugao to the Portuguese Frontier, and the harbour at the Port of Mormugao.

The general conditions of the contracts are as follows:—

*Government (Portuguese) aid.*—5 per cent. per annum is guaranteed to the West of India Portuguese Railway Company on £ 800,000 and 6 per cent. on £ 550,000.

*Currency of contracts.*—The contract of 1881 is current for a period of 99 years from date of opening, when the line and all its appurtenances become the property of the Portuguese Government by payment to the Company of the value of rolling-stock, moveable machinery, stores, etc. The Portuguese Government may, however, determine the contract, at any time, on six months' previous notice, by payment in sterling of the actual outlay of the Company on the railway, telegraph and other works, with 10 per cent. added thereto, together with the then value of rolling-stock, machinery, station appliances and stores. The contract of 1902, between the Southern Mahratta and West of India Portuguese Railway Companies which took effect from the 1st July 1902 is to continue in force, for five years subject to amendment or determination after two years on six months' notice by either party.

*Power of Company to surrender contract.*—By the contract of 1881 as modified by that of 1892 the West of India Portuguese Railway Company can at any time surrender the contract by giving six months' notice if the Portuguese Government fail to pay in full the interest guaranteed on their capital. On surrender of the contract, the Portuguese Government are to pay to the Company in sterling an amount equal to the total capital expended on the railway, telegraph, etc., and in addition 10 per cent. of such expenditure; and also purchase the rolling-stock, machinery, etc., at a valuation.

*Terms of working by Southern Mahratta Railway Company.*—The West of India Portuguese and Southern Mahratta railways are worked as one concern and the expenses of the system (exclusive of expenditure on 'New Minor Works' and of interest payable by the Southern Mahratta railway on the capital cost of telegraph lines) divided in proportion to their gross earnings, the net earnings to be applied—in payment of a contribution sanctioned by the Portuguese Government towards a reserve fund; in payment of the guaranteed dividends on the capital of the Company; and in payment of the residue to the Portuguese Government and the Company in equal proportions.

The contract of 1902 provides that a separate account be kept of the revenue transactions at the Port of Mormugao and the amount to be charged for working to be the actual expenses of working and maintenance plus 10 per cent. thereon for supervision by the Southern Mahratta railway, subject to the provision that the relation of the aggregate expenses of

## Appendix 38.

History of railways.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 21</sup> <sub>Sub-heads (a) to (j)</sub> SOUTHERN MAHRATTA RAILWAY SYSTEM—*concl'd.*21 (k) West of India Portuguese (3' 3½" gauge)—*concl'd.*Terms of contract—*concl'd.*

working—including supervision—to the total receipts shall not exceed, without the sanction of the West of India Portuguese Railway Company, the mean of the figures which represent the relation of such expenditure to receipts during the years 1895, 1896 and 1899; should any such excess occur it is to be annulled or reduced as much as possible by a corresponding diminution in the charge for supervision.

*Rates and fares.*—Subject to the maxima prescribed in the contract between the Portuguese Government and the West of India Portuguese railway and to the maxima and minima prescribed in the contracts between the Secretary of State and the Southern Mahratta railway, the rates both for through and local working shall be fixed from time to time by the Southern Mahratta railway and shall be applicable to the whole system.

The shipping and port charges to conform with those in force under the Bombay Port Trust, and not to exceed those charges without the mutual consent of the British and Portuguese Governments.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1890 . . . . .	1,63,14,170	4,75,437	67,001	0.41	138	74.24
1891 . . . . .	1,63,22,139	5,44,014	1,21,533	0.74	157	86.01
1892 . . . . .	1,63,00,901	3,74,681	11,107	0.07	109	106.01
1893 . . . . .	1,62,74,816	5,86,705	1,65,069	1.01	168	78.18
1894 . . . . .	1,63,12,813	5,43,678	1,19,332	0.73	157	88.47
1895 . . . . .	1,63,31,966	5,83,077	1,12,136	0.69	166	90.75
1896 . . . . .	1,63,80,444	2,97,176	—78,893	...	90	137.34
1897 . . . . .	1,63,40,168	1,79,722	—1,60,785	...	55	189.46
1898 . . . . .	1,62,97,448	2,20,870	—1,10,145	...	65	173.60
1899 . . . . .	1,62,96,432	5,72,475	1,64,665	1.01	157	83.15
1900 . . . . .	1,63,29,262	3,33,596	—66,845	...	96	120.04
1901 . . . . .	1,63,42,023	3,68,120	—48,589	...	205	113.20
1902 . . . . .	1,63,08,793	3,54,657	51,337	0.37	133	85.51
1903 . . . . .	1,63,03,793	3,98,235	1,51,112	1.10	149	61.86

21 (z) Bellary-Rayadrug (3' 3½" gauge)—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Bellary to Rayadrug . . . . .	24-10-02	...	33.00	33.00

21 (j) Hospet-Kottur (3' 3½" gauge)—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Hospet to Kottur . . . . .	24-10-02	...	44.10	44.10

The construction of the Bellary-Rayadrug and Hospet-Kottur railways has been sanctioned with the object of increasing facilities for distributing food to the population in the Madras Presidency and of lessening the difficulties and troubles incidental to the period of scarcity. (See also Madras railway system).

\* Including outlay on Harbour works.



**APPENDIX 38—contd.**  
[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

**Appendix 38.**  
**History of railways.**

*History of railways constructed and in progress.*  
[For Index see page 168.]

Number Main head 23. **UDAIPUR-CHITOR RAILWAY (3' 3 $\frac{1}{2}$ " gauge)—**  
Sub-head (a)

**Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
Berach near Chitorgarh to Debari near Udaipur	Feb. 1894	1-8-95	60.39		1895 to 1897	60
Separate station at Chitorgarh	2-6-98	15-8-98	0.47			
Debari to Udaipur		25-8-99	6.44		1898	61
Total	...	...	...	67.30	1899 to 1903	67

**Details of construction—**

*Permanent-way.*—The permanent-way consists of 41 $\frac{1}{2}$  lb. flat-footed steel rails, 30 feet long, laid on deodar sleepers.

*Ballast.*—The ballast consists of broken stone.

*Fencing.*—The line is fenced round stations only.

*Curves.*—On the Berach-Debari section, the sharpest curve is of 1,146 feet radius and is 0.54 mile in length; and on the extension from Debari to the Ahr river near Udaipur, at the 61st mile, the sharpest curve has a radius of 820 feet and is 0.16 mile in length.

*Gradients.*—The ruling gradient is 1 in 120, except on the section Debari to Udaipur, where it is 1 in 100.

**Terms of contract—**

The line is owned and has been worked by the Udaipur State, since the 31st December 1897, prior to which date it was worked by the Bombay, Baroda and Central India railway as a temporary measure.

**Statistics of working—**

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1893	7,000	...	...	...	...	...
1894	2,70,472	...	...	...	...	...
1895	18,39,850	54,702	18,778	1.40	42	65.67
1896	15,63,721	1,35,219	53,750	3.44	43	60.25
1897	15,99,040	1,23,175	42,881	2.68	39	65.19
1898	17,89,252	1,43,822	61,364	3.43	46	57.33
1899	19,89,912	2,10,540	1,04,829	5.27	62	50.21
1900	19,80,010	3,17,928	1,85,703	9.38	91	41.59
1901	20,61,858	2,22,175	94,112	4.56	63	57.65
1902	20,65,630	2,17,388	97,131	4.70	62	55.32
1903	20,66,171	1,77,817	66,446	3.21	51	62.63

Number Main head 23. **BARASET-BASIRHAT LIGHT RAILWAY (2' 6" gauge)—**  
Sub-head (a)

**Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
Baraset to Basirhat	3-4-03	...	Miles. 26.00	Miles. 26.00

**Details of construction—**

The line is under construction.

**Terms of contract—**

The line will be worked on the terms contained in the Bengal Government Notification No. 86 R., dated the 15th May 1903, under the following agreement:—

*Agreement*—of 14th December 1897 (between the District Board of the 24 Purganas and the Baraset-Basirhat Light Railway Company).

## Appendix 38. History of railways.

### APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

#### History of railways constructed and in progress.

[For Index see page 168.]

#### Number <sup>Main head 23,</sup> **BARASET-BASIRHAT LIGHT RAILWAY (2' 6" gauge)—concl'd.** <sub>Sub-head (a)</sub>

Terms of contract—*concl'd.*

The general conditions are as follows:—

*Aid by District Board.*—The District Board guarantees such an annual subsidy as will make the net profits equivalent to Rs. 1,500 per annum per mile of line declared open, subject to a maximum of Rs. 38,000, and free use of District Road not exceeding 8 feet on one side. (The company to acquire land necessary for stations and diversions at its own expense.)

*Currency of agreement.*—Upon the expiration of twenty-one years from the date of the order authorising the construction, by giving six months' notice, or at intervals of seven years thereafter, the District Board can exercise the right of purchase on payment of twenty times the average yearly net earnings of the four years preceding together with a bonus of twenty per cent. thereon.

*Terms of working.*—Any surplus profits in excess of 4 per cent. on share capital *plus* not more than 4 per cent. of debenture capital will be equally divided between the District Board and the company.

*Rates and fares.*—Certain maxima have been fixed within which the company is permitted to vary its rates.

#### Number <sup>Main head 24,</sup> **BARSI LIGHT RAILWAY (2' 6" gauge)—** <sub>Sub-head (a)</sub>

Mileage	Open Miles.	Under construction Miles.	Total Miles.
Progress in opening—	21.59	57.87	78.96

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
Barai Road Junction to the town of Barai.	1-8-95	1-8-97	21.59			
Total open mileage	...	...	...	21.59	1897	
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>						
Barai Road Junction to Pandharpur	6-1-98	}	30.67	}	1903	} 22
Barai town to Tadwala	20-11-00		28.70			
Total, Lines under construction	...	...	...	57.87		
<b>GRAND TOTAL</b>	...	...	...	<b>78.96</b>		

#### Details of construction—

*Permanent-way.*—The permanent-way consists of flat-footed steel rails, 35 lb. to the yard, on steel sleepers.

*Ballast.*—Partly of broken stone and partly of hard moorum.

*Fencing.*—An efficient fencing is provided for a short distance on either side of level crossings, at bridges and round Barai Road Junction and Barai Town stations.

*Curves.*—There are four curves with radii of less than 1,000 feet.

*Gradients.*—The ruling gradient is 1 in 100.

#### Terms of contracts—

The Barai Light railway is worked under the following contracts:—

*Contracts of*—1st August 1895 (between the Secretary of State and the Barai Light Railway Company) for construction, maintenance and working the line from Barai Road Junction to Barai town.

26th August 1902 (between the Secretary of State and the Barai Light Railway Company) for construction and working of the extensions.

The general conditions of the contracts are as follows:—

*Government aid.*—The Company is allowed the use of part of the road between Barai Town and Barai Road Junction stations only. Land is provided free for the extensions.

*Currency of contracts.*—Government may determine the contract on the 1st January 1924, or at the expiration of any subsequent period of 10 years, by giving 12 months' notice. If the contract is so determined, Government are to pay the Company in England in sterling an amount equal to the total paid-up capital, so far as such capital was expended with the authority of the Secretary of State.

*Power of Company to surrender contracts.*—Nil.

*Terms of working.*—The line is worked by the owning Company.

*Rates and fares.*—Certain maxima have been fixed within which the Company is permitted to vary its rates.

\*Only the earth work has been thrown up as famine work.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7, and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*  
[ For Index see page 168.]Number Main head 24 **BARSI LIGHT RAILWAY (2' 6" gauge)—concl'd.**  
Sub-head (a)

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
1895	Rs. 2,357	Rs. ...	Rs. ...	...	Rs. ...	...
1896	10,06,657	...	...	...	...	...
1897	13,48,891	1,07,778	21,500	1'60	115	80'00
1898	13,42,592	1,30,321	24,559	1'83	116	81'15
1899	13,56,800	1,56,118	64,475	4'75	139	53'63
1900	13,58,501	1,24,440	42,440	3'13	111	65'00
1901	12,99,539	1,66,238	79,533	6'13	150	52'69
1902	13,18,242	1,50,275	52,879	4'02	134	64'31
1903	12,59,175	1,30,694	53,423	4'24	116	50'12

Number Main head 25 **BUKHTIARPORE-BEHAR LIGHT RAILWAY (2' 6" gauge)—**  
Sub-head (a)

The line has been laid as far as possible on the District road.

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Bukhtiarpore on the East Indian railway to Behar	30-5-01	1-7-03	18'50	18'50

Details of construction—

*Permanent-way.*—The permanent-way consists of 30 lb. flat-footed steel rails, on cross sleepers of pyinkado.*Ballast.*—The line is ballasted throughout.*Fencing.*—The line is unfenced.

Terms of contracts—

The railway has been constructed and is worked on the terms contained in Bengal Government Notification No. 100 R., dated the 25th June 1901, under the following agreement:—

*Agreement.*—(Between the District Board of Patna and the Bukhtiarpore-Behar Light Railway Company.)

The general conditions are as follows:—

*Government aid.*—In addition to land, which has been provided free of charge, except for station sites and diversion from the district road, the District Board supplements the net earnings, subject to a maximum limit of Rs. 32,000 per annum, to allow of the Company paying a dividend of 4 per cent. per annum on the Company's share capital of Rs. 8,00,000.*Currency of agreement.*—In the event of the District Board exercising the right of purchase under section 41 of the Bengal Act, III of 1888, viz., upon the expiration of twenty-one years from the date of the order of the Local Government authorising the construction of the line by giving six months' notice, or at intervals of 7 years thereafter the value to be calculated at 20 years' purchase of the average net profits to the Company during the four years preceding the transaction together with a bonus of 20 per cent. thereon.*Terms of working.*—Any surplus profits in excess of 4 per cent. on share capital, plus not more than 4 per cent. on venture capital, will be equally divided between the District Board and the Company.*Rates and fares.*—Certain maxima have been fixed within which the Company are permitted to vary rates.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of year.	Gross earnings.	Net traffic receipts.	Percentage on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
1903	Rs. 7,47,838	Rs. 85,800	Rs. 15,120	2'16	119	5

**Appendix 38.**  
History of railways.

**APPENDIX 38—contd.**

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 26</sup> <sub>Sub-head (a)</sub> **CUTCH STATE RAILWAY (2' 6" gauge)—**

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
<i>Tuna-Anjar section—</i>				
Tuna to Anjar . . . . .	26-8-03	...	11.86	11.86

The line is being constructed by His Highness the Rao Sahib of Cutch.

Number <sup>Main head 27</sup> <sub>Sub-head (a)</sub> **DWARA-THERRIA LIGHT RAILWAY (2' 6" gauge)—**

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Dwara to Maolong . . . . .	15-5-02	...	18.50	19.50
Maolong to Therria Ghat . . . . .		...	1.00	
Total . . . . .	...	...	...	19.50

Details of construction—

The whole line is under construction.

Terms of contract—

The Dwara-Therria Light railway is being constructed by the promoter, Mr. G. L. Garth, and will be worked by the promoter or any Company which may be formed by him under—

*Terms.*—Contained in the Notification issued by the Chief Commissioner of Assam under No. 44, dated the 14th August 1902.

The general conditions are as follows:—

*Government aid.*—Land to be provided free of cost.

*Currency of contract.*—The Secretary of State may, after the Dwara-Maolong section has been opened for twenty-one years and thereafter at intervals of ten years, terminate the contract, and take over the railway, with all its equipments, buildings and property, upon giving two years' previous notice and on paying twenty-five times the average yearly net earnings of the last three years with a minimum of 100 per cent. of the cost price of the light railway.

*Rates and fares.*—Certain maxima have been fixed. Full control over charges of all kinds for the use of the railway is reserved by the Chief Commissioner.

Number <sup>Main head 28</sup> <sub>Sub-head (a)</sub> **KALKA-SIMLA RAILWAY (2' 6" gauge)—**

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Kalka to Simla . . . . .	29-6-98	9-11-03	59.44	59.44

Details of construction—

*Permanent-way.*—The permanent-way consists of 41½ lb. flat-footed steel rails on wooden sleepers.

*Ballast.*—The line is ballasted with stone.

*Tunnels.*—See Appendix 37.

*Fencing.*—The line is only fenced across the Kalka camping ground and through the skirts of the town of Kalka.

*Curves.*—The sharpest curve is 120 feet in radius.

*Gradients.*—The ruling gradient is 1 in 33.

Terms of contracts—

The railway is worked under the following contracts:—

*Contracts of*—29th June 1898.—(Between the Secretary of State and the Delhi-Umballa-Kalka Railway Company) for construction and working.

15th November 1901.—Contract supplemental to that of 1898 (embodying terms for change of gauge).

20th January 1903.—Contract supplemental to that of 1898 (embodying terms for the advance of funds for the completion of the line).

The conditions of the contracts are as follows:—

*Government aid.*—Land provided free.

\* Will probably be opened in the cold season of 1904.  
† Commencement of work has not yet been authorised.

APPENDIX 38—*contd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 28</sup>/<sub>Sub-head (a)</sub> KALKA-SIMLA RAILWAY (2' 6" gauge)—*concl'd.*Terms of contracts—*concl'd.*

*Terms of contracts.*—The line was constructed without a guarantee at the cost of the Delhi-Umballa-Kalka Railway Company, for which purpose the Company is authorised to raise further share capital, in addition to the capital already issued for the existing undertaking, to such an amount as may be mutually agreed upon. The amount agreed upon so far is £600,000. As the actual cost will, however, exceed this amount Government have arranged to lend the Company the requisite moneys at 4 per cent. interest owing to sufficient funds not being forthcoming in England.

*Currency of contract.*—Government may determine the contract, on giving twelve months' notice, either on the expiration of twenty-five years from the date on which the railway has been opened for traffic throughout or on the 31st December 1928 or on the expiration of any subsequent period of ten years. Government may also determine, on giving notice, if the Company fail to comply with the obligations of the contracts. In the former case, Government will pay a sum equal to twenty-five times the amount of the average yearly net earnings during the five years immediately preceding the time of termination, but not exceeding by more than 50 per cent., or not being less than the total capital in sterling expended. In the latter case, Government will pay the fair value of the railway and works.

*Power of Company to surrender contract.*—Nil.

*Terms of working.*—From the gross earnings will be deducted all charges properly debitable to revenue as working expenses (including any single item of capital expenditure not exceeding Rs. 1,000 classed as a "Minor Work," subject to a maximum charge on such account of Rs. 15 per mile of line open in each half-year), and the balance will represent net dividends for shareholders, subject to the payment of interest on moneys loaned from Government.

*Rates and fares.*—Certain maxima and minima have been fixed, and, subject to certain special conditions regarding charges for tunnels the Company can vary such rates within the maxima and minima.

## Statistics of working—

TABLE I.					TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1899	5,53,228	...	...	...	...	...
1900	13,18,465	...	...	...	...	...
1901	34,86,993	...	...	...	...	...
1902	92,81,656	...	...	...	...	...
1903	1,41,92,888	32,052	7,022	0.04	77	78.09

Number <sup>Main head 29</sup>/<sub>Sub-head (a)</sub> MADURA DISTRICT LIGHT RAILWAY (2' 6" gauge)—

## Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Ammayanayakanur to Kotagudi	30.5.99	..	55.00	93.00
Perriyakulam to Krishna-Manaik's Tope		..	5.00	
Theni to Karuvavath		..	33.00	
TOTAL	...	...	...	93.00

Messrs. Wilson and Company of Madras, the Promoters, were originally granted a concession for the construction of these lines under the Indian Tramways Act; but as there is no provision under this Act for payment of interest out of capital during construction, they submitted an amended application for a scheme for Light railways to be constructed under the provisions of the Indian Railways Act. The Promoters were informed that, subject to their acceptance of certain conditions, they might proceed to raise the necessary capital for the line. They accepted the conditions in July 1902 and are now negotiating a contract with the Madura District Board.

Number <sup>Main head 30</sup>/<sub>Sub-head (a)</sub> MORVI RAILWAY (2' 6" gauge)—

This line is laid on the existing bridged and metalled road for the first 24 miles as far as Dolia and then runs along the line of unbridged and unmetalled road to Vankauer and on to Morvi and Rajkot. The conversion of the line to 3' 3½" gauge is in progress.

## Appendix 38. History of railways.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

### History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 30</sup> <sub>Sub-head (a)</sub> **MORVI RAILWAY (2' 6" gauge)—concl'd.**

#### Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
<b>Main line—</b>						
Wadhwan to Dolia	14-12-83	11-8-86	24.00	68.50	1885	51
Dolia to Vankaner		20-11-86	27.75		1886	68
Vankaner to Morvi		24-3-87	16.75		1887	68
Total Main line	...	...	...	...	1888	68
<b>Rajkot branch—</b>					1889	94
Vankaner to Rajkot	10-5-88	1-1-90	25.25	...	to	
Extension across the Aji river to Rajkot junction with the Jetalsar-Rajkot railway.	6-1-94	6-8-94	0.61	25.86	1902	
Total Branch	...	...	...	...		
<b>GRAND TOTAL</b>	...	...	...	94.86		

#### Details of construction—

**Permanent-way.**—The permanent-way originally consisted of steel rails, weighing 19 lb. to the yard, and pressed steel sleepers weighing 11 lb. These have since been extensively replaced in sections by 29 lb. and 41½ lb. steel rails and creosoted pine sleepers. The line is now being relaid with 41½ lb. steel rail on creosoted pine sleepers of 3' 3½" gauge dimension, to permit of the conversion to that gauge which is being undertaken. At present 21 miles of the Rajkot branch and the extension across the Aji river have been thus relaid.

**Ballast.**—The line is ballasted with Moorum (decayed trap) and sand.

**Fencing.**—The line is unfenced.

**Curves.**—There are 3.24 miles of curves with radii of less than 1,000 feet.

**Gradients.**—The ruling gradient is 1 in 200.

#### Terms of contract—

The Morvi Light railway is owned by His Highness the Thakore Sahib of Morvi, and is under his control.

#### Statistics of working—

TABLE I.					TABLE II.	
Calendar year.	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1886	6,88,671	84,822	...	...	30	103.23
1887	11,06,500	1,29,407	16,994	1.54	39	86.87
1888	11,77,842	1,62,087	21,984	1.87	46	86.44
1889	18,96,548	1,77,321	56,726	3.00	50	68.01
1890	20,25,863	2,95,277	87,550	4.32	60	70.34
1891	20,55,599	3,09,419	1,08,617	5.28	63	64.90
1892	21,04,519	3,69,171	1,30,379	6.19	63	57.83
1893	21,57,365	3,22,817	1,45,732	6.75	66	54.86
1894	22,23,526	3,20,348	1,42,687	6.42	65	55.46
1895	23,99,396	3,69,972	2,00,127	8.34	75	45.91
1896	23,82,315	3,26,893	1,81,621	7.62	79	59.06
1897	24,76,757	4,27,484	2,11,642	8.55	87	50.49
1898	24,79,448	3,76,220	1,63,990	6.61	77	56.41
1899	25,06,414	4,20,486	1,70,058	6.78	86	59.56
1900	27,28,115	4,23,308	1,58,794	5.62	86	62.49
1901	27,59,452	3,58,668	1,25,534	4.56	73	65.00
1902	27,32,748	3,05,058	1,18,299	4.36	62	62.85
1903	27,88,452	2,96,066	1,44,766	5.89	61	51.45

Number <sup>Main head 31</sup> <sub>Sub-head (a)</sub> **RANAGHAT-KRISHNAGAR LIGHT RAILWAY (2' 6" gauge)—**

The line has been constructed on the old Government embankment made for the abandoned Ranaghat-Bhagwango's railway. On the 23rd February 1899, the Indian Railways Act, IX of 1890, except section 135, was applied to the line. A siding, 1.50 miles long, has been constructed by the Eastern Bengal State railway on the 5' 6" gauge, and runs from Ranaghat station to the left bank of the Churni and connects with the railway by a ferry worked by the Ranaghat-Krishnagar Light railway.

\* Information not available.

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 31</sup> <sub>Sub-head (a)</sub> RANAGHAT-KRISHNAGAR LIGHT RAILWAY (2' 6" gauge)—concl'd.

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
Aistala Ghat (Right bank of the Churni river) near Ranaghat to Krishnagar	Dec. 1895	5-4-99	Miles. 20.25	Miles. 20.25

Details of construction—

*Permanent-way.*—The permanent-way consists of 25 lb. flat-footed steel rails, on cross sleepers of pyinkado, 9 per rail of 24 feet.

*Ballast.*—The line is ballasted throughout with brick.

*Fencing.*—The line is unfenced.

*Curves.*—The sharpest curve has a radius of 600 feet.

*Gradients.*—The line is practically level except a rise of 1 in 200 in the first mile.

Terms of contract—

The Ranaghat-Krishnagar Light railway is maintained and worked on the terms contained in Bengal Government Notification No. 334, dated the 16th December 1895, under the following agreement:—

*Agreement of*—6th September 1895 (between the Ranaghat-Krishnagar Light Railway Company and the District Board of Nadia).

The general conditions are as follows:—

*Aid by the District Board.*—The District Board make up the net earnings of the Company to Rs. 1,473 per mile per annum constructed and declared open, limited to a maximum claim of Rs. 28,000 per annum.

*Currency of agreement.*—The District Board may determine the agreement by purchase, under section 41, Act III of 1883 (Bengal Code), the amount payable being calculated at 20 years' purchase of the average net annual profits to the Company during the four years preceding, together with a bonus of 20 per cent. on the amount so arrived at.

*Terms of working.*—When the net earnings of the Company, after deducting any commission payable to Agents, exceed 4 per cent. upon the capital, such surplus profits exceeding 4 per cent. and not exceeding 8 per cent. are divided equally between the Company and the District Board; and when the net earnings exceed 8 per cent. upon the capital, the Company receive one-fourth share of the surplus, the remaining three-fourths of such surplus being equally divided between the District Board and Government.

*Rates and fares.*—The same rates and fares as are in force on the Howrah-Amta railway.

Statistics of working—

Calendar year.	TABLE I.							TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage of net traffic receipts on capital outlay.	Subsidy from District Board.	Total income.	Per cent. of total income on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
1898	Rs. 7,22,969	Rs. ...	Rs. 8,415	... 1.16	Rs. 12,352	Rs. 20,767	... 2.85	Rs. 59	... 81.84
1899	7,27,809	46,848	19,442	2.59	9,472	28,914	3.85	66	71.95
1900	7,51,809	69,802	15,185	2.02	1,465	16,650	2.22	66	78.03
1901	7,51,157	69,117	21,353	2.84	15,960	37,313	4.97	72	71.97
1902	7,51,158	76,180	38,832	4.55	5,674	39,508	5.31	82	60.86
1903	7,43,657	86,484	...	...	...	...	...	...	...

Number <sup>Main head 32</sup> <sub>Sub-head (a)</sub> SHAHDARA-SAHARANPUR LIGHT RAILWAY (2' 6" gauge)—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
Shahdara to Saharanpur	4-1-02	...	Miles. *95.00	Miles. 125.00
Baraut to Meerut			Miles. *30.00	
Total	...	...	...	...

\* Commencement of work has not yet been authorised.



Appendix 38.  
History of railways.

APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7, and 47 in Report for 1902.]

History of railways constructed and in progress.  
[For Index see page 168.]

Number <sup>Main head 33</sup> <sub>Sub-head (a)</sub> TARAKESHWAR-MAGRA LIGHT RAILWAY (2' 6" gauge)—

On the 13th January 1899, the Indian Railways Act, IX of 1890, except section 135, was applied to the line.

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
Tarakeshwar to Basua	18-12-91	7-11-94	12-50	31-12	1894	12
Basua to Magra		8-3-95	18-62			
<b>TOTAL OPEN MILEAGE</b>	...	...	...	...	...	...
<b>LINE UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION.</b>						
Magra to Tribeni	...	14-4-04	2-15	2-15	...	...
<b>GRAND TOTAL</b>	...	...	...	33-27	...	...

Details of construction—

**Permanent-way.**—The permanent-way consists of flat-footed steel rails, weighing 30 lb. to the yard, laid on patent steel sleepers for 10 miles and pyinkado sleepers for the remainder.

**Ballast.**—The line is laid with sand ballast and brick boxing.

**Fencing.**—The line is partially fenced.

**Curves.**—The sharpest curve is of 955 feet radius and is 0-18 mile in length.

**Gradients.**—The ruling gradient is 1 in 1000; there are short gradients of 1 in 500 to 1 in 700 at bridge approaches; of a total length of 1-88 miles, from the bridge under the East Indian railway to Magraganj station, there is a gradient of 1 in 350, 0-49 mile long.

Terms of contract—

The Tarakeshwar-Magra Light railway is maintained and worked on the terms contained in Bengal Government Notification No. 1, dated the 4th January 1896 under the following agreement:—

**Agreement of**—16th October 1890 (between the District Board of Hooghly and the Bengal Provincial Railway Company).

The general conditions are as follows:—

**Currency of Agreement.**—In the event of the District Board wishing to purchase the railway at the end of 21 years under the provisions of section 41 of the Bengal Tramways Act, 1883 (Bengal Code), the promoters bind themselves to make it over at a price two-fifths in excess of the original capital outlay.

**Terms of working.**—The line is worked by the Owning Company.

**Rates and fares.**—Certain maxima have been fixed within which the Company is permitted to vary its rates.

Statistics of working—

Calendar year.	TABLE I.				TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	
1898	9,44,627	74,074	21,002	2-22	46	71-65
1899	9,62,448	66,168	12,192	1-27	41	81-58
1900	9,61,811	76,594	20,961	2-18	47	72-63
1901	9,72,175	83,150	19,890	2-04	51	70-23
1902	9,76,194	84,272	24,842	2-54	52	70-52
1903	10,15,987	85,546	25,350	2-50	53	70-87

Number <sup>Main head 34.</sup> <sub>Sub-head (a)</sub> TEZPORE-BALIPARA LIGHT RAILWAY (2' 6" gauge)—

On the 3rd May 1898, the Indian Railways Act, IX of 1890, except section 135, was applied to the line.

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
Tezpoore Ghat to Bindukuri	Oct. 1894	9-8-94	8-10	20-10	1894	8
Bindukuri to Balipara		1-9-95	12-00			
<b>TOTAL</b>	...	...	...	...	...	...

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.*History of railways constructed and in progress.*  
[For Index see page 188.]Number <sup>Main head 84</sup> <sub>Sub-head (a)</sub> **TEZPORE-BALIPARA LIGHT RAILWAY (2' 6" gauge)—****Details of construction—***Permanent-way.*—The permanent-way consists of flat-footed steel rails, weighing 30 lb. to the yard, laid on uriam and nahor sleepers, 2,200 to the mile.*Ballast.*—The line is unballasted.*Fencing.*—The line is only fenced round stations.*Curves.*—In the first mile there are two curves with a radius of 500 feet, the lengths of which are 294 feet and 450 feet, respectively. In station yards the minimum radius is 300 feet.*Gradients.*—The ruling gradient is 1 in 125: between Rangapara and Balipara there is a gradient of 1 in 100 for a length of 0.66 mile.**Terms of contract—**

The Tezapore-Balipara Light railway is maintained and worked under—

*Terms*—contained in the notification issued by the Chief Commissioner of Assam under No. 33, dated the 1st June 1895.

The general conditions are as follows:—

*Government aid.*—Free use of Government land and a subsidy to the extent of Rs. 5,000 from the Local Board at Tezapore.*Currency of contract.*—The Secretary of State can, after the railway has been opened for fifteen years and thereafter at intervals of seven years, terminate the contract, and take over the railway with all its equipments, buildings and property, upon giving 12 months' previous notice, and on paying the Company the value of the property as a dividend earning investment together with an additional bonus of 20 per cent. over and above such value.*Terms of working.*—The line is worked by the owning Company.*Rates and fares.*—Certain rates and fares have been fixed.**Statistics of working—**

Calendar year.	TABLE I.							TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage of net traffic receipts on capital outlay.	Subsidy from District Board.	Total income.	Per cent. of total income on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	
1898 . . . . .	4,56,927	85,745	20,157	4.41	5,000	25,157	5.51	82	76.49
1899 . . . . .	4,74,177	95,157	26,156	5.52	5,000	31,156	6.57	91	72.51
1900 . . . . .	4,87,240	95,981	25,797	5.29	5,000	30,797	6.32	92	73.12
1901 . . . . .	4,87,240	83,840	16,898	3.47	5,000	21,898	4.49	80	79.84
1902 . . . . .	4,87,240	85,012	21,651	4.48	5,000	26,651	5.47	81	74.58
1903 . . . . .	4,87,240	94,742	27,739	5.67	5,000	32,739	6.71	81	70.72

Number <sup>Main head 35</sup> <sub>Sub-head (a)</sub> **THATON-DUYINZAIK LIGHT RAILWAY (2' 6" gauge)—****Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.
			Miles.	Miles.
Thaton to Duyinzaik . . . . .	1883	11-2-85	7.76	7.76

**Details of construction—***Permanent-way.*—The permanent-way consists of flat-footed steel rails, weighing 20 lb. to the yard on steel and wooden sleepers.*Ballast.*—The line is ballasted.*Fencing.*—The line is unfenced.*Curves.*—The total length of curves with a radius of less than 1,000 feet is 1,343 feet, the radii varying from 207 to 500 feet.*Gradient.*—The ruling gradient is 1 in 80.**Terms of contract—**

The Thaton-Duyinzaik Light railway is worked under the following:—

*Contract of*—10th January 1884 (between the Secretary of State and the late Mr. G. E. L. Dawson of Rangoon) for construction and working.*Agreement of*—6th June 1896 for working the railway and a Steam Launch Service between Moulmien and Duyinzaik.

The general conditions are as follows:—

*Government aid.*—Land has been provided at a pepper-corn rent, and the proprietors receive Rs. 350 per mensem for the carriage of mails between Moulmien and Thaton *via* Duyinzaik, including both steamer and railway journeys.

Appendix 38.  
History of railways.

APPENDIX 38—*concl'd.*

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 35</sup> <sub>Sub-head (a)</sub> **THATON-DUYINZAIK LIGHT RAILWAY (2' 6" gauge)—*concl'd.***

**Terms of contract—*concl'd.***

**Currency of contract.**—The contract is in force for a period of 99 years. After the railway has been open for years, and thereafter at intervals of 10 years, the Secretary of State can terminate the contract and take over the railway upon giving 12 months' notice, and paying the value of the permanent-way, buildings and rolling-stock, together with a bonus of 25 per cent. on the value. Government may also determine the contract, if the railway is not worked for consecutive calendar months, or if the proprietors fail to carry out the agreement.

**Terms of working.**—The railway is now worked and maintained by the Irrawaddy Flotilla Company, who bought the concern on the 1st December 1900.

**Rates and fares.**—Certain maxima have been fixed within which the proprietors are permitted to vary the rates.

Statistics of working—Information not available.

Number <sup>Main head 36</sup> <sub>Sub-head (a)</sub> **DARJEELING-HIMALAYAN RAILWAY (2' 0" gauge)—**

The line is laid for a great part of its length along the cart road. The road has almost continuous curves and windings as it passes across the mountains.

**Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open
Siliguri to Kurseong	1879	23-8-80	Miles. 31.75	Miles. 51.00	1880	miles
Kurseong to Sonada		1-2-81	9.50		1881	
Sonada to Ghum		5-4-81	5.87		to 1883	
Ghum to Darjeeling		4-7-81	3.63		1884	
Darjeeling to Darjeeling Bazar		16-6-86	0.25		to 1903	
TOTAL	...	...	...	51.00		

**Details of construction—**

**Permanent-way.**—The line was originally laid with 30 lb. iron rails, and the plains section afterwards relaid with 40 lb. iron rails. The hill section has been relaid with 41½ lb. steel rails. The plains section is also gradually being renewed with steel rails, 3.75 miles being so far completed. The sleepers are of sal, oak and chestnut: for renewals sal sleepers only are being used.

**Ballast.**—For 9 miles from Siliguri the line has been ballasted with gravel, except near Siliguri where sand has been used. On the hill section, where necessary, broken stone ballast has been put in.

**Curves.**—Of curves with radii varying from 60 feet (the sharpest) to 1,000 feet, there is a total length of 35.55 miles distributed over the line.

**Gradients.**—The ruling gradient is 1 in 23.

**Terms of contract—The railway is worked under the following contract:—**

**Contract of—**8th April 1879 (between the Secretary of State and the late Mr. Franklin Prestage), for construction, maintenance and working.

The general conditions of the contract are as follows:—

**Government aid.**—Government undertake to pay the Company such sum as will make up its gross receipts to two lakhs of rupees annually. Government land and the use of the existing cart road are also granted free of cost.

**Currency of contract.**—If at any period the railway should not be worked for six consecutive months, the Company is to surrender the road and land acquired from Government, receiving any sums due to them for permanent improvements to the road or works connected with it. After the railway has been opened for 25 years (reckoning from the 4th May 1884) and thereafter at intervals of 10 years, Government have the power, by giving 12 months' previous notice, to terminate the contract and take over the line on payment to the Company of its value as a dividend earning investment, with an additional bonus of 20 per cent. over and above such value.

**Power of Company to surrender contract.**—Nil.

**Terms of working.**—After the first five years, and subject to subsequent modifications of clause 16, half the net profits of any year in excess of 5 per cent. on the paid up capital to be applied in repayment to Government of the amount expended on the maintenance of the cart road during the same year or in making good a deficiency in gross receipts. Government are under obligation to uphold and maintain this road at their own expense, subject to their right to be repaid the charges incurred in any year out of one moiety of the surplus profits earned in that year.

**Rates and fares.**—Certain maxima have been fixed within which the Company are permitted to vary rates.

## APPENDIX 38—contd.

[Appendices A, (partia), G, 7 and 47 in Report for 1902.]

Appendix 38  
History of railways

## History of railways constructed and in progress.

[For Index see page 163.]

Number <sup>Main head 36.</sup> <sub>Sub-head (a)</sub> **DARJEELING-HIMALAYAN RAILWAY (2' 0" gauge)—concl'd.**

Statistics of working—

Calendar year.	TABLE I.						TABLE II.		
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage of net traffic receipts on capital outlay.	Subsidy from Local Government.	Total income.	Per cent. of total income on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	
1880	14,33,681	*	34,197	2.39	...	34,197	2.39	*	*
1881	18,18,723	2,61,154	1,15,522	6.35	...	1,15,522	6.35	103	53.92
1882	23,56,112	3,66,474	89,045	3.78	...	89,045	3.78	141	75.70
1883	26,04,304	4,21,944	1,55,725	5.98	...	1,55,725	5.98	162	68.16
1884	27,23,240	4,35,024	1,46,725	5.39	...	1,46,725	5.39	167	66.26
1885	27,27,523	4,31,103	1,63,350	5.99	...	1,63,350	5.99	*	*
1886	27,32,136	4,36,476	2,42,109	8.86	...	2,42,109	8.86	188	51.23
1887	27,43,214	4,77,151	2,10,823	7.68	...	2,10,823	7.68	190	55.86
1888	27,71,926	6,14,893	2,83,327	10.22	...	2,83,327	10.22	233	53.92
1889	29,40,423	5,74,237	2,29,117	7.80	...	2,29,117	7.80	217	60.10
1890	29,52,103	5,76,436	2,32,894	7.89	...	2,32,894	7.89	217	59.60
1891	30,59,693	6,13,387	2,58,253	8.44	...	2,58,253	8.44	231	57.61
1892	31,09,079	6,35,778	2,66,647	8.57	...	2,66,647	8.57	240	57.46
1893	31,72,323	6,34,181	2,83,808	8.50	†-1,55,418	1,28,485	4.02	239	55.41
1894	31,77,536	6,36,234	2,56,286	8.10	-29,756	2,26,530	7.13	239	59.27
1895	31,99,765	7,39,618	3,59,933	11.25	-61,740	2,98,193	9.32	279	50.92
1896	33,12,732	7,81,594	3,59,667	10.25	-62,087	2,97,580	8.98	294	53.98
1897	33,15,455	7,44,266	3,33,188	10.05	-55,929	2,77,259	8.36	291	55.28
1898	33,65,993	7,54,590	3,41,109	10.13	-59,432	2,81,677	8.37	283	54.79
1899	35,03,469	7,14,925	2,49,770	7.12	-34,939	2,14,831	6.12	270	65.07
1900	34,99,487	8,09,153	3,61,840	10.34	-64,268	2,97,572	8.50	305	60.17
1901	34,78,411	7,87,941	3,13,861	9.02	-49,971	2,63,890	7.58	297	54.66
1902	34,96,507	8,50,280	3,78,005	10.18	-67,704	3,10,301	8.88	321	56.65
1903	36,13,058	9,61,662	4,16,848	11.54	-79,226	3,37,622	9.34	363	

Number <sup>Main head 37</sup> <sub>Sub-head (a)</sub> **HOWRAH-AMTA LIGHT RAILWAY (2' 0" gauge)—**

After leaving Telkul Ghât (Howrah,) the line runs through the town of Howrah and along the district road to Amta. The extension to Champadanga will be constructed on a separate alignment of its own. Diversions have been made to avoid sharp curves in the road. On the 13th January 1899, the Indian Railways Act, IX of 1890, except section 13f was applied to the Howrah-Amta railway.

Two miles of the Howrah-Amta railway, from Howrah to Kadamtolla, are worked over by the Howrah-Sheakhil railway.

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT	
					Calendar year.	Mileage open.
			Miles.	Miles.		Miles.
<b>Main line—</b>						
Telkul Ghât (Howrah) to Dumjur	27-3-95	1-7-97	9.20	27.19	1897	1
Dumjur to Bargachia		2-10-97	5.87		1898	2
Bargachia to Maja		4-5-98	5.50		1899	2
Maja to Amta		1-6-98	6.62		1900	2
Total Main line	...	...	...	...	1901	2
					1902	2
					1903	2
<b>Branch—</b>						
Bargachia to Jagatbalabpur	27-3-95	2-10-97	1.50	1.50		
Total Branch	...	...	...	...		
TOTAL OPEN MILEAGE	...	...	...	28.69		
<b>LINES UNDER CONSTRUCTION OR SANCTIONED FOR CONSTRUCTION—</b>						
Jagatbalabpur to Antpur	20-3-02	...	8.50	21.00		
Antpur to Champadanga		...	9.00†			
Antpur to Rajbulhat		...	3.50†			
GRAND TOTAL	...	...	...	49.69		

\* Information not available.

† Due to repayment to Government by the Railway Company on account of the up-keep and maintenance of the cart road utilized by the railway.

‡ Commencement of work not yet authorised.

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 37</sup> <sub>Sub-head (a)</sub> HOWRAH-AMTA LIGHT RAILWAY (2' 0" gauge)—concl'd.

## Details of construction—

*Permanent-way.*—The permanent-way consists of flat-footed steel rails, 25 lb. to the yard, laid on cross sleepers of pyinkado.

*Ballast.*—The line is ballasted throughout.

*Fencing.*—The line is unfenced.

*Curves.*—The sharpest curve, sanctioned specially for the town of Howrah, has a radius of 144 feet.

*Gradients.*—The line is practically level throughout.

## Terms of contracts—

The Howrah-Amta Light railway is worked on the terms contained in the Bengal Government, Notifications No. III, dated the 26th March 1895, and No. 75-R., dated the 7th April 1902, under the following agreements:—

*Agreements of*—12th June 1889 (between the District Board of Howrah and the Bengal District Road Tramways Company).

3rd May 1897 (between the District Board of Howrah and the Bengal District Road Tramways Company, Howrah-Amta).

16th August 1900 (between the District Board of Howrah and the Howrah-Amta Light Railway Company).

The general conditions are as follows:—

*Aid by the District Board.*—As subsidy for payment of interest, the District Board has guaranteed a sum sufficient to make the net earnings equivalent to Rs. 1,100 per annum per mile constructed and opened, limited to a maximum annual payment of Rs. 28,000. The free use of the district road, not exceeding 6 feet and on one side only, has been granted to the Company for the purpose of laying the line, a clear width of 14 feet being left for vehicular traffic.

*Currency of agreement.*—The District Board has the power of determining the agreements after 21 years. In the event of the District Board of Howrah exercising, in conjunction with the District Board of Hooghly and the Municipality of Howrah, the right of purchase conferred upon them by section 41 of Act 3 of 1893 (Bengal Code), the value to be placed upon the railway is to be calculated by adding to the value of the whole undertaking with all its equipments, as a dividend earning investment, a bonus of 20 per cent. over and above such value.

*Terms of working.*—Whenever the net earnings of the Company in respect of the railway are in excess of 4 per cent. upon the capital for the time being of the Company, such surplus profits are divided between the Company and the District Board in equal proportions.

*Rates and fares.*—Certain maxima have been fixed within which the Company is permitted to vary its rates.

## Statistics of working—

Calendar year.	TABLE I.							TABLE II.	
	Capital outlay, to end of each year.	Gross earnings.	Net traffic receipts.	Percentage of net traffic receipts on capital outlay.	Subsidy from District Board.	Total income.	Percentage of total income on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	
1898 . . .	11,24,713	1,89,519	78,910	7.02	—15,062	68,848	5.68	152	58.36
1899 . . .	11,41,307	2,50,768	1,12,794	9.85	—27,835	84,959	7.44	168	55.02
1900 . . .	11,88,283	2,56,418	1,23,104	10.36	—30,244	92,860	7.81	172	51.99
1901 . . .	11,96,697	2,60,580	1,14,032	9.53	—28,148	87,936	7.35	175	56.21
1902 . . .	12,68,532	2,65,497	1,38,120	10.49	—29,703	19,417	8.15	178	49.86
1903 . . .	12,88,853	2,77,451	1,37,333	10.69	—31,833	1,05,950	8.22	186	50.32

## APPENDIX 38—contd.

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

Appendix 38.  
History of railways.

## History of railways constructed and in progress.

[For Index see page 168.]

Number <sup>Main head 38</sup> <sub>Sub-head (a).</sub> HOWRAH-SHEAKHALA LIGHT RAILWAY (2' 0" gauge)—

On the 13th January 1899, the Indian Railways Act, IX of 1890, except section 135, was applied to the line.

The Howrah-Sheakhala Light railway works over 2·00 miles of the Howrah-Amta Light railway from Howrah to Kadamtolla.

Progress in opening—

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.
<i>Main line—</i>			Miles.	Miles.		Miles.
Kadamtolla to Chanditala	27-3-95	2-8-97	8·88	17·38		
Chanditala to Kistrampur		10-9-97	3·75		1897	17
Kistrampur to Sheakhala		7-11-97	4·75		1898	20
Total Main line	...	...	...		1899	20
<i>Branch—</i>					1900	20
Chanditala to Janai	27-3-95	5-5-98	2·37		1901	20
Total Branch	...	...	...	2·37	1902	20
GRAND TOTAL	...	...	...	19·75	1903	20

Details of construction—

*Permanent-way.*—The permanent-way consists of flat-footed steel rails, 25 lb. to the yard, laid on cross sleepers of pyinkado.*Ballast.*—The line is ballasted throughout.*Fencing.*—The line is unfenced.*Curves.*—The sharpest curves, sanctioned specially for Howrah town, are of 144 feet radius.*Gradients.*—The line is practically level throughout.

Terms of contract—

The Howrah-Sheakhala Light railway is worked on the terms contained in the Bengal Government, Notification No. 112, dated the 26th March 1885, under the following agreements:—

*Agreements of*—12th June 1889 (between the District Board of Howrah and the Bengal District Road Tramways Company).

16th July 1889 (between the District Board of Howrah and the Bengal District Road Tramways Company).

The general conditions are as follows:—

*Aid by the District Board.*—The District Board has guaranteed to make up the net earnings to Rs. 950 per mile constructed and opened per annum. Land was also provided free of charge.*Currency of agreement.*—The agreement is current for a period of 21 years. In the event of the District Board of Howrah exercising, in conjunction with the District Board of Hooghly and the Municipality of Howrah, the right of purchase conferred upon them by section 41 of Act III of 1883 (Bengal Code), the price to be placed upon the tramway is to be calculated by adding to the value of the whole tramway with all its equipment as then constituted, a bonus of 15 per cent. over and above such value.*Terms of working.*—Whenever the net earnings of the Company are in excess of 4 per cent. upon the capital of the Company actually paid up and expended for the time being, surplus profits are divided between the Company and the District Board in the proportion of two-thirds to the Company and one-third to the District Board.*Rates and fares.*—Certain maxima have been fixed within which the Company are permitted to vary rates.

Statistics of working—

Calendar year.	TABLE I.							TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Percentage of net traffic receipts on capital outlay.	Subsidy from District Board.	Total income.	Per cent. of total income on capital outlay.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	
1898	6,09,398	76,166	16,768	2·75	4,267	21,035	3·45	70	72·12
1899	6,09,434	78,398	21,453	3·52	—250	21,203	3·48	65	70·77
1900	6,09,446	76,019	26,924	4·40	—999	25,825	4·21	74	64·71
1901	6,09,446	75,579	23,165	3·80	1,108	24,273	3·98	77	70·52
1902	6,09,565	82,019	31,789	5·20	—550	31,189	5·12	80	61·38
1903	6,14,715	87,049	34,950	5·68	—668	34,282	5·57	85	59·36

**Appendix 38.**  
**History of railways.**

**APPENDIX 38—concl'd.**

[Appendices 4 (portion), 6, 7 and 47 in Report for 1902.]

*History of railways constructed and in progress.*

[For Index see page 168.]

Number <sup>Main head 39.</sup> <sub>Sub-head (a)</sub> **JORHAT STATE RAILWAY (2' 0" gauge)—**

The line was constructed out of Provincial revenues by the Government of Assam for the convenience of the numerous tea gardens in the neighbourhood of Jorhat.

**Progress in opening—**

Name and section of railway.	Date of sanction.	Date of opening.	Mileage.	Total.	TOTAL MILEAGE OPEN AT THE END OF EACH YEAR FROM THE COMMENCEMENT.	
					Calendar year.	Mileage open.*
<b>Main line—</b>			Miles.	Miles.	1884	Miles.
Gosaigaon to Jorhat . . . . .	13-9-83	15-12-84	7·00	23·25	1885	1
Jorhat to Dhali river . . . . .		15-12-84	9·50		1886	2
Dhali river to Titabar . . . . .		16-7-87	1·75		1887 to 1889	3
Extension of line from Gosaigaon to Borghop (cold weather line) . . . . .	...	22-10-01	5·00	...	...	...
<b>Total Main line</b> . . . . .	...	...	...	...	1890 to 1899	2
<b>Mariant branch—</b>					1900 to 1903	3
Chenimara Junction to Mariani . . . . .	13-9-83	7-1-85	7·00	7·00	...	...
<b>Total Branch</b> . . . . .	...	...	...	7·00	...	...
<b>GRAND TOTAL</b> . . . . .	...	...	...	30·25	...	...

**Details of construction—**

*Permanent-way.*—Excepting 2·51 miles of the line between Jorhat and Gosaigaon, which is laid with steel rails 30 lb. to the yard, the whole line including the section from Gosaigaon to Borghop is laid with steel rails, 18 lb. to the yard.

*Ballast.*—The line is unballasted.

*Fencing.*—The railway land acquired for stations and buildings at Jorhat only is demarcated by barbed wire fencing.

*Curves.*—The sharpest curve has a radius of 480 feet and is 468 feet in length.

*Gradients.*—Of a total mileage of 30·25 miles, 4 miles are on a gradient of 1 in 800.

**Terms of contracts—**

The line is owned and worked by the State.

**Statistics of working—**

Calendar year.	TABLE I.						TABLE II.	
	Capital outlay to end of each year.	Gross earnings.	Net traffic receipts.	Per cent. on capital outlay.	Interest.	Gain or loss to the State.	Earnings per mile per week.	Proportion of expenses to earnings.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	
1884 . . . . .	4,38,333	1,161	—488	...	17,533	—18,016	40	141·60
1885 . . . . .	5,14,641	31,828	—7,455	...	19,895	—26,850	25	123·14
1886 . . . . .	5,84,608	32,271	—13,887	...	22,026	—35,913	28	136·28
1887 . . . . .	6,79,372	49,199	—13,772	...	26,608	—40,560	32	127·99
1888 . . . . .	7,10,376	55,477	75	...	27,807	—27,732	38	90·86
1889 . . . . .	7,33,649	59,665	—3,543	...	29,057	—32,600	42	105·94
1890 . . . . .	7,42,351	61,967	6,162	0·85	29,448	—23,288	44	90·06
1891 . . . . .	7,51,421	64,583	1,493	0·20	30,026	—28,543	47	97·70
1892 . . . . .	7,54,791	68,079	11,789	1·56	30,107	—18,318	48	82·16
1893 . . . . .	7,99,680	69,310	14,436	1·81	32,013	—17,577	52	79·32
1894 . . . . .	8,18,184	71,933	11,201	1·37	32,587	—21,386	52	84·43
1895 . . . . .	8,28,409	84,696	18,720	2·26	32,919	—14,199	61	77·81
1896 . . . . .	8,65,300	89,996	13,745	1·59	33,592	—19,847	64	84·73
1897 . . . . .	9,02,416	96,186	14,124	1·57	36,102	—21,978	64	85·88
1898 . . . . .	9,09,445	95,958	20,135	2·21	36,179	—16,044	7	79·03
1899 . . . . .	9,31,626	96,488	—5,946	...	37,228	—43,174	72	106·16
1900 . . . . .	9,08,643	86,695	—15,664	...	36,841	—52,005	68	118·05
1901 . . . . .	9,01,038	83,184	—4,169	...	36,248	—40,417	56	105·01
1902 . . . . .	8,95,693	86,641	—8,655	...	36,237	—39,892	57	104·22
1903 . . . . .	9,63,343	90,710	13,594	1·51	36,408	—22,814	59	85·01

\* Mileages here shown are those which actually existed in the years named. The differences as compared with the mileage of the sections as on 31st December 1903 are principally due to changes in the cold weather extensions.



**APPENDICES**  
**OF**  
**IMPORTANT DOCUMENTS.**

## APPENDIX A.

Memorandum, dated 23rd March 1904, by the Honourable Sir A. T. Arundel, K.C.S.I., on Railway development and working.

Our programme of capital expenditure on railways for the year 1904-1905 has been prepared on the same lines as before; and, as on previous occasions, has been limited not by the amount which the full development of the country could employ or by that which the existing organisation could profitably spend on that development, but by the amount which the Government can make available. This amount, I am glad to say, provides for a larger expenditure on railway development next year than has ever been possible before. That it is not, however, by any means so large as to meet all the claims upon it, is evident from the following figures contrasting the amounts which have been asked for by the various railway administrations concerned or for projects which have been accepted as necessary, with those which we have been able to allot:—

	Demand. Lakhs.	Allotment. Lakhs.
(a) Open lines, including rolling stock . . . . .	645.78	548.67
(b) Lines already under construction—		
(i) Begun prior to 1903-04 . . . . .	379.53	351.84
(ii) „ during 1903-04 . . . . .	168.05	148.11
(c) New lines to be begun in 1904-1905 . . . . .	248.52	91.88
	<u>1,441.88</u>	<u>1,140.00</u>
(d) Purchase of lines . . . . .	60.00	60.00
Total . . . . .	<u>1,501.88</u>	<u>1,200.00</u>

2. As usual the principle has been followed of providing for the needs of open lines and lines already under construction before deciding to undertake the construction of new ones, and in doing this the necessity for providing for the additional rolling stock necessary to cope with the growth of traffic has not been overlooked. Although the number of goods wagons in India has been increased from 76,471 in 1898 to 94,796 in 1902, *i.e.*, by about 24 per cent. in five years, and although 11,731 more wagons have since been supplied or are under order, we have considered it desirable to provide no less than about 300 lakhs to pay for the latter and provide for further increases of rolling stock during the coming year.

3. The following statement shows the growth of expenditure on railway development by Government during the past five years:—

Year.	Open lines, including Rolling Stock.	LINES UNDER CONSTRUCTION.		Total.
		Started in previous years.	Started in current year.	
	Lakhs.	Lakhs.	Lakhs.	Lakhs.
1900-01 (actual expenditure) .	528.22	251.10	18.34	797.66
1901-02 ditto .	352.58	509.06	25.64	887.28
1902-03 ditto .	481.74	452.50	71.52	1,005.76
1903-04 (latest grants) .	398.81	511.20	72.08	982.07
1904-05 (proposed grants) .	548.67	499.95	91.88	1,140.00

4. The details of the distribution of the allotment for next year are shown in statement A, and a complete list of the railways already opened, now in hand, or

## Appendix A—continued.

Appendix A  
Important  
documents.

about to be started, is given in statement D. The following are the chief new items of the construction part of the programme, *vis.* :—

## I. Lines started in 1903-1904 :—

Railway.	Length in miles.	ALLOTMENTS.	
		1903-04.	1904-05.
Khurja-Hapur Extension, East Indian railway . . .	38.87	3.00	10.00
Ondal-Sainthia Chord, ditto . . .	43.62		
Kaunia-Bonarpara branch, Eastern Bengal State railway . . .	44.25	8.50	10.00
Hyderabad-Badin Extension, North Western railway . . .	61.00	17.80	18.61
Jech-Doab, Southern Section ditto . . .	103.00	8.63	20.00
Hapur-Meerut branch, Oudh and Rohilkhand railway . . .	19.50	4.25	1.50
Rewari-Phulera Chord, Rajputana Malwa railway . . .	133.32	11.65	28.00
Bairagnia-Shikarpur, Tirhoot State railway . . .	58.05	18.18	50.00
Bettiah-Bagaha, ditto . . .	49.35		
Mansi-Baptiahi, ditto . . .	78.62		
Sakri-Jainagar, ditto . . .	30.47		
Shikarpur-Bikna Thori ditto . . .	21.50		
<b>Total</b> . . .	<b>681.55</b>	<b>72.06</b>	<b>148.11</b>

## II. Lines proposed to be commenced in 1904-1905 :—

Railway.	Length in miles.	Allotments proposed for 1904-05.
Pench Valley Coal Branch, Bengal Nagpur railway . . .	25	5.00
Nagda-Bara-Muttra-Aligarh, Bombay, Baroda and Central India ry. . .	392	20.00
Henzada-Kyangin, Burma railways . . .	66	15.00
Pegu-Moulmein, ditto . . .	122	
Katihar-Malda branch, Eastern Bengal State railway . . .	50	30.00
Coonoor-Ootacamund, Nilgiri railway . . .	12	10.00
Jullundur-Kapurthala (British Section) North-Western railway . . .	7	2.00
Khushalgarh-Kohat Conversion and Indus Bridge, ditto . . .	33	9.38
<b>Total</b> . . .	<b>707</b>	<b>91.38</b>

5. Besides these lines, arrangements have been concluded for the construction of the following railways by private enterprise not directly guaranteed or otherwise aided by the State :—

Railway.	Gauge.	Length.	Approximate cost in lakhs.
Ludhiana-Ferozepore-McLeodganj, Southern Punjab railway . . .	5' 6"	163.06	87.19
Gainsari-Jarwar branch, Bengal and North-Western ry. . .	3' 3 3/4"	12.56	3.07
Gorakhpur-Bagaha Extension, ditto ditto . . .	3' 3 3/4"	60.94	24.83
Kopaganj-Dhorighat, ditto ditto . . .	3' 3 3/4"	21.70	6.43
Uska Bazar-Tulsipur Extension, ditto ditto . . .	3' 3 3/4"	53.54	23.83
Bareilly-Soron, Rohilkund and Kumaon railway . . .	3' 3 3/4"	55.80	55.73
Lalkua-Kashipur, ditto ditto . . .	3' 3 3/4"	40.00	10.00
Moradabad-Ramnagar, ditto ditto . . .	3' 3 3/4"	47.00	16.00
Barasat-Basirhat Tramway . . .	2' 6"	26.00	9.50
Pandharpur and Tadwala Extensions, Barsi Light ry. . .	2' 6"	57.37	31.49
Tuna-Bundar Anjar Extension, Cutch State railway . . .	2' 6"	11.86	2.31
Moharbanj State railway . . .	2' 6"	28.50	6.60
Sabalgarh-Sheepur Extension, Gwalior Light railway . . .	2' 6"	69.00	19.10
Matheran Light Tramway . . .	2' 0"	12.00	10.00

**Appendix A.**  
Important documents.

**Appendix A—continued.**

and negotiations are in progress, which we hope will result in the early construction of the following in a similar manner :—

Railway.	Length in miles.	Gauge.	Estimated cost.
			Rs.
Amritsar-Pati, North Western railway	27	5' 6"	13,39,000
Mymensingh-Bara-Ari with a branch to Gauripur, Eastern Bengal State railway	36½	3' 3½"	22,15,812
Bezwada-Masulipatam, Southern Mahratta railway	50	3' 3½"	27,89,406
Guntur-Repalle, ditto	33	3' 3½"	17,33,687
Kurnool Road-Kurnool, ditto	32	3' 3½"	7,11,000
Phirangipuram-Gurzala, ditto	50½	3' 3½"	12,59,641
Rawalpindi-Murree with extensions to Kuldana and Gharial, North Western railway	50	2' 6"	41,34,077
Singhjani-Nalitabari, Eastern Bengal State railway	25	2' 6"	12,38,886

6. Towards the close of the current year we have been approached by the owners of the following lines, viz. :—

	Gauge.	Length in miles.
Segauli-Raksaul railway, Bengal and North-Western railway	3' 3½"	18.09
Brahmaputra-Sultanpur railway, Eastern Bengal State railway	3' 3½"	59.37
Cooch Behar State railway, Eastern Bengal State railway	2' 6"	33.60
Ranaghat-Krishnagar Light railway, ditto	2' 6"	20.25

with a view to the purchase of the lines by the State ; and, after consideration of the value of each as a commercial undertaking, Government propose to purchase them at an aggregate cost of about 60 lakhs. It is expected that the transactions will shortly be completed. The purchase of the last named line is, of course, a result of the construction of the new Ranaghat-Murshidabad line in its neighbourhood ; but as regards the rest, it seems somewhat disappointing that after all the endeavours made with the intention of encouraging landowners and capitalists to embark in railway enterprise in India, the owners of the first two lines should consider it better to sell than to wait for the development of traffic which must in time make those lines remunerative investments.

7. This incident, and the fact that but few offers have been received for concessions on branch line or rebate terms, clearly show that, in the present state of the market, money cannot be attracted for railway enterprise in India except by a firm guarantee of a minimum interest at least as high as is paid on direct Government loans, or unless the promoters can be assured of a much higher rate of profit than Indian railways as a rule are likely to earn during the first few years after opening. This matter has been dealt with by Mr. T. Robertson in his report on the working of Indian railways, and his remarks are receiving the careful consideration of this Government and of the Secretary of State, but it will probably be some time before a conclusion can be arrived at.

8. It is satisfactory to observe that there are indications that the offer made by the Government of India to encourage Local Boards to finance light railways in their own districts by advancing them money on the security of their entire resources is

## Appendix A—continued.

Appendix A.  
Important  
documents.

likely to be availed of by the District Board, Kistna, for the construction of one or more of the following lines :—

- (a) Bezwada-Masulipatam,
- (b) Guntur-Repalle,
- (c) Phirangipuram Gurzala,

in the event of the promoters who have endeavoured to form a company to construct these lines failing to raise the necessary funds within the time fixed, *vide* Statement C.

9. At the beginning of the official year 1903-1904, there were 26,308 miles of railway open for traffic and 2,650 miles under construction. Since then and up to the date of going to press 738 miles have been added to the former figure, and before the end of this month an addition of 100 miles is expected. This will raise the total length of railways open for traffic at the close of year 1903-1904 to 27,144 miles (*vide* Statement D).

During the current year sanction was accorded to the construction of 1,282 miles of railways, details of which are to be found in Statement D, and there are now 3,044 miles under construction or sanctioned for construction.

10. The railways of India, taken as a whole, for the fourth year in succession show a balance to the credit of the general revenues after paying working expenses, interest charges and payments for annuities in redemption of Capital. The approximate figures for 1903-1904, as compared with the three previous years, are as follows :—

	1900-1901.	1901-1902.	1902-1903.	1903-1904.
	Lakhs.	Lakhs.	Lakhs.	Lakhs.
Surplus of revenue over expenditure	48.77	126.99	34.34	128.19

11. Compared with the figures of the previous year the results for the year 1903-1904 show an improvement of 93.85 lakhs. The receipts are more by 195.83 lakhs, the working expenses are higher by 64.29 lakhs, while interest charges, etc., have increased by 37.69 lakhs. In 1902-1903 although there was an improvement in the earnings of certain railways due to the Delhi Durbar, the installation of His Highness the Maharaja of Mysore and certain religious fairs, a considerable falling off occurred in the earnings of the East Indian, North Western and Rajputana-Malwa railways owing to an abnormal depression in the coal trade and in grain and pulse traffic. In the Budget Estimate for 1903-1904 due allowance was made for general improvement in traffic, particularly on the lines that were so backward in the previous year, and the above result shows that although adverse conditions remain much the same on the Rajputana-Malwa railway, the improvement has been marked on some of the larger lines, the traffic on which has been exceptionally favourable. The increase in working expenses occurs chiefly on the Great Indian Peninsula railway system and on the Burma, Eastern Bengal State and North Western railways, where largely increased outlay has been necessary on maintenance and renewals of way and rolling stock and on repairs to flood damages. The charges for interest, etc., rise with the steadily increasing expenditure on Capital account, but this increase is more than covered by the increase in profits above quoted. The large surpluses of the last four years are full of encouragement for the construction of carefully selected extensions and projects in the future.

Appendix A—*continued.*

Appendix A.  
Important  
documents.

STATEMENT A.

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STATEMENT

OF

Anticipated Capital Expenditure on Railways, Open or under Construction,  
for the year 1904-1905.

Branch lines under Rebate terms are excluded.

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Capital Expenditure on Railways—1904-1905.  
(OMITTING 000.)

No.	RAILWAY.	Grants allotted for 1903-1904.	Distribution of grants during 1904-1905.
	<b>I.—OPEN LINES.</b>	Rs.	Rs.
	<b>I.—By STATE AGENCY.</b>		
1	Eastern Bengal . . . . .	49.15	50.00
2	Do. Improved facilities near Calcutta . . . . .	12.04	10.86
3	Do. Rangpur-Dhubri . . . . .	1.41	1.50
4	Ondh and Rohilkhand . . . . .	29.60	27.48
5	North Western . . . . .	34.52	65.62
6	Warora Colliery . . . . .	—0.46	—0.25
7	Frontier Railway Reserve . . . . .	0.10	...
8	Jodhpur-Hyderabad (British Section). . . . .	0.03	0.08
	Total Open Lines by State Agency . . . . .	126.39	155.29
	<b>II.—By THE AGENCY OF MAIN LINE COMPANIES.</b>		
9	East Indian . . . . .	71.09	71.17
10	Do. Colliery Sidings . . . . .	2.91	1.33
11	Rajputana-Malwa . . . . .	16.70	18.00
12	Firhoot and Hajipur-Katihar . . . . .	10.50	15.00
13	South Indian . . . . .	5.00	12.00
	Do. Madura-Pamban . . . . .	6.53	1.56
14	Great Indian Peninsula . . . . .	32.66	100.00
15	Do. Bhopal-Itarsi (Brit. Sec.) . . . . .	1.47	2.00
16	S. M. Ry., Guntakal-Mysore Frontier . . . . .	0.05	0.24
17	N. G. S. Ry., Bezwada Extension. . . . .	0.15	0.03
18	Madras Railway—North-East (East Coast) Line . . . . .	26.50	20.00
19	Do. Nilgiri . . . . .	0.03	3.60
20	{ Assam-Bengal Construction . . . . .	36.48	20.00
	{ Do. Land . . . . .		
	{ Do. Jetties . . . . .		
	Total Open Lines by Agency of Main Line Companies . . . . .	210.34	264.93
	• Carried over . . . . .	336.73	420.22



## Appendix A—continued.

Capital Expenditure on Railways—1904-1905—contd.  
(OMITTING 000.)Appendix A.  
Important  
documents.

No.	RAILWAY.	Grants allotted for 1903-1904.	Distribution of grants during 1904-1905.
	OPEN LINES—contd.	Rs.	Rs.
	Brought forward	336.73	420.22
	III.—AGAINST THE CAPITAL ACCOUNTS OF THE OLD GUARANTEED RAILWAY COMPANIES.		
21	Madras . . . . .	1.56	33.00
22	„ Calicut—Cannanore . . . . .	2.00	0.30
23	Bombay, Baroda and Central India . . . . .	—0.39	5.21
24	Ditto ditto Godbra Baroda chord . . . . .	23.60	3.24
	Total Open Lines, old Guaranteed Companies	26.77	41.75
	IV.—AGAINST THE CAPITAL ACCOUNTS OF INDIAN RAILWAY COMPANIES OTHER THAN THE OLD GUARANTEED RAILWAY COMPANIES.		
25	Bengal Central . . . . .	0.50	0.66
26	Bengal Nagpur (including Northern Section of East Coast Railway)	12.71	12.00
27	Burma . . . . .	29.53	32.52
28	(Great Indian Peninsula), Indian Midland . . . . .	34.84	27.27
29	R. & K. Ry., Lucknow-Bareilly . . . . .	3.84	0.54
30	Southern Mahratta . . . . .	0.80	12.00
31	Do. Mysore Section . . . . .	1.20	1.21
	Total Open Lines other Railway Companies	83.42	86.20
	V.—CAPITAL ACCOUNTS OF BRANCH LINE COMPANIES WITH A FIRM GUARANTEE.		
32	Hardwar-Dehra . . . . .	0.54	0.50
33	Brahmaputra-Sultanpur . . . . .	0.50	...
	Total Open Lines by Branch Line Companies	1.04	0.50
34	Purchase of four Railways* . . . . .	...	60.00
	TOTAL OPEN LINES—carried over	447.96	608.67

\* Cooch Behar.  
Brahmaputra-Sultanpur.  
Ranaghat-Krishnagar.  
Segowlie-Baksaul.

(OMITTING 000.)

No.	RAILWAY.	Length.	Amount of estimate or approximate cost.	Outlay to end of 1902-03.	Grants allotted during 1903-04.	Distribution of grants during 1904-05.
		Miles.	Rs.	Rs.	Rs.	Rs.
	TOTAL OPEN LINES—brought forward	...	...	...	447.96	608.67
<b>II.—LINES UNDER CONSTRUCTION.</b>						
<b>I.—BY AGENCY OF MAIN LINE COMPANIES.</b>						
35	East Indian-Gya Asansol Grand Chord . . . . .	99	1,41,14	25.7	50.50	50.00
36	Ditto Shikohabad-Farukhabad . . . . .	66	45,20	7.4	10.00	15.00
37	Ditto Ondal Sainthia . . . . .	44	43,55	}	3.00	10.00
38	Ditto Khurja Hapur . . . . .	39	26,08			
39	B. B. & C. I. Ry. Rewari Phulera Chord . . . . .	133	53,25	...	11.65	28.00
40	Tirhoot State Railway—Mansi-Baptiahi and other extensions . . . . .	238	1,25,72	...	18.19	50.00
41	S. I. Ry. Tinnevely-Quilon, British Section . . . . .	50	45,06	33.2	6.36	3.06
42	Ditto Native State Section . . . . .	58	1,12,65	82.0	25.01	3.30
	Ditto Marina Loop . . . . .	...	...	...	—0.05	...
43	Madras Ry. Azikhal-Mangalore . . . . .	77	1,08,63	3.9	32.18	50.00
	TOTAL	...	...	152.2	156.83	219.36
<b>II.—AGAINST THE CAPITAL ACCOUNT OF THE OLD GUARANTEED RAILWAY COMPANIES.</b>						
	TOTAL	...	...	...	...	...
<b>III.—AGAINST THE CAPITAL ACCOUNT OF INDIAN RAILWAY COMPANIES OTHER THAN THE OLD GUARANTEED RAILWAY COMPANIES.</b>						
44	Bengal-Nagpur Sini-Midnapur-Cuttack-Calcutta . . . . .	353	8,02,45	809.5	50.82	51.48
45	Ditto Jubbulpore-Gondia (Satpura) . . . . .	253	85,11	63.5	34.42	17.19
46	Ditto Midnapore-Jherria Extension . . . . .	114	1,07,81	125.8	65.43	24.41
47	Ditto Colliery lines . . . . .	25	18,54	17.6	9.60	1.07
48	Ditto Chowrassi Branch . . . . .	9	5,67	3.1	2.53	...
49	Ditto Hariharpar Boojoodih . . . . .	28	31,57	0.2	6.67	15.85
50	Ditto Reserve for new lines (Pench Valley) . . . . .	25	9,00	...	1.28	5.00
51	Burma Railways, Henzada-Kyangin . . . . .	} 188	168,00	...	...	15.00
51	Ditto Pagu-Moulmein . . . . .					
		...	...	10,19.7	170.73	130.00
	Total lines under Construction—carried over . . . . .	...	...	...	327.56	349.36
	TOTAL OPEN LINES—carried over . . . . .	...	...	...	447.96	608.67

Appendix A—continued.

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Capital Expenditure on Railways—1904-1905—contd.

Appendix A.  
Important documents.

(OMITTING 000.)

No.	RAILWAY.	Length.	Amount of estimate or approximate cost.	Outlay to end of 1902-03.	Grants allotted during 1903-04.	Distribution of grants during 1904-05.
		Miles.	Rs.	ks.	Rs.	Rs.
	Total Open Lines—brought forward	...	...	...	447-96	608-67
	Total Lines under Construction—brought forward	...	...	...	927-56	349-36
	LINES UNDER CONSTRUCTION—contd.					
	III.—BY THE STATE.					
53	E. B. S. Ry.—Dhubri-Gauhati	151	92,31	0-7	14-35	10-23
54	Do. Kaunia-Bonarpara	45	21,79	...	8-50	10-00
55	Do. Murshidabad Branch	96	84,48	7-0	40-00	35-20
56	O. and R. Ry.—Allahabad-Fyzabad	97	1,17,09	95-6	41-89	10-75
57	Do. Hapur-Meerut	20	5,75	...	4-25	1-50
58	N. W. Ry.—Hyderabad-Badin	61	32,46	...	17-80	18-00
59	Do. Quetta-Nushki	82	70,06	8-0	25-80	25-00
60	Do. Jech-Doab (Southern Section)	52	25,70	...	8-68	20-00
61	Madras Ry.—Coonoor-Ootacamund	12	23,00	...	...	10-00
62	Agra-Delhi Chord	121	90,76	19-3	45-19	35-20
63	Reserve for New Lines	...	...	...	...	65-30
	Total Lines under Construction by the State	...	...	94-6	206-55	241-97
	Total Lines under Construction	...	...	...	534-11	591-33
	Total—Open Lines	...	...	...	447-96	608-67
	GRAND TOTAL	...	...	...	982-07	12,00-00

## Statement of Capital Expenditure on Railways—1904-1905—concl'd.

(OMITTING 000)

No.	RAILWAY.	Distribution of grants during 1904-05.	
<b>ABSTRACT BY OPEN LINES AND CONSTRUCTION.</b>			
<b>I.—CAPITAL FOR OPEN LINES.</b>			
		Rs.	
i.	By State agency . . . . .	155.29	
ii.	By agency of Main Line Companies . . . . .	264.93	
iii.	By „ old Guaranteed Companies . . . . .	41.75	
iv.	By „ other Railway Companies . . . . .	86.20	
v.	By „ Branch Companies . . . . .	0.50	
	<b>TOTAL OPEN LINES</b>	<b>548.67.</b>	
	Purchase of four railways . . . . .	60.00	
<b>II.—CAPITAL FOR LINES UNDER CONSTRUCTION BY COMPANIES.</b>			
i.	By agency of Main Line Companies . . . . .	219.36	
ii.	By „ old Guaranteed Railway Companies . . . . .	...	
iii.	By „ other Railway Companies . . . . .	130.00	
iv.	By „ Branch Line Companies . . . . .	...	
	<b>TOTAL LINES UNDER CONSTRUCTION BY COMPANIES</b>	<b>349.36</b>	
	<b>III.—CAPITAL FOR LINES UNDER CONSTRUCTION BY THE STATE</b> . . . . .	<b>241.97</b>	
	<b>GRAND TOTAL</b>	<b>12,00.00</b>	
<b>ABSTRACT SHOWING DISTRIBUTION BY FUNDS.</b>			
I.—From Imperial Funds.	(i) By State agency . . . . .	(a) Open Lines . . . . .	155.29
		(b) Construction . . . . .	241.97
		<b>Total</b>	<b>397.26</b>
	(ii) By the agency of Main Line Companies.	(a) Open Lines . . . . .	264.93
		(b) Construction . . . . .	219.36
		<b>Total</b>	<b>484.29</b>
	<b>Total I</b>	<b>881.55</b>	
II.—Against the Capital Account of the old Guaranteed Railway Companies.	(a) Open Lines . . . . .	41.75	
	(b) Construction . . . . .	...	
	<b>Total II</b>	<b>41.75</b>	
III.—Against the Capital Accounts of Indian Railway Companies other than the old Guaranteed Railway Companies.	(a) Open Lines . . . . .	86.20	
	(b) Construction . . . . .	130.00	
	<b>Total III</b>	<b>216.20</b>	
IV.—Against the Capital Accounts of Branch Line Companies which are in receipt of a firm Government Guarantee.	(a) Open Lines . . . . .	0.50	
	(b) Construction . . . . .	...	
	<b>Total IV</b>	<b>0.50</b>	
	<b>TOTAL I TO IV</b> . . . . .	<b>548.67</b>	
V.—Purchase of four railways . . . . .	(a) Open Lines . . . . .	591.33	
	(b) Construction . . . . .	60.00	
	<b>GRAND TOTAL</b>	<b>12,00.00</b>	

## Appendix A—continued.

Appendix A.  
Important  
documents.

## STATEMENT B.

List of new lines to be taken up as funds permit, with the estimated yearly provision required to ensure an economical rate of progress when once started.

(Lakhs of rupees.)

No.	Railway.	Length in Miles.	Estimated cost.	APPROXIMATE AMOUNT EACH YEAR.				
				1st.	2nd.	3rd.	4th.	Future.
			Lakhs.	Lakhs.	Lakhs.	Lakhs.	Lakhs.	Lakhs.
<b>EAST INDIAN RAILWAY—</b>								
1	Burdwan-Howrah Chord . . . . .	42	56.33	10	20	26	...	...
2	Bhoga'pur-Bausi-Baidyanath . . . . .	76	56.00	10	20	26	...	...
3	Hoogly-Kutwa . . . . .	65	63.12	4	30	30	...	...
4	Kutwa-Ahmedpur . . . . .	32	32.00	2	10	20	...	...
5	Gya-Kutwa cross line . . . . .	180	148.47	10	40	50	49	...
6	Fatepur-Markundi . . . . .	72	98.46	10	40	49	...	...
7	Agra City Terminus . . . . .	...	15.00	5	10	...	...	...
8	Rewa-Sutna . . . . .	31	5.25	6	...	...	...	...
<b>BENGAL-NAGPUR RAILWAY—</b>								
9	Bankura (Bishenpur)-Calcutta . . . . .	105	246.00	20	50	50	50	76
10	Pench Valley Coal Branch . . . . .	25	9.00	5	4	...	...	...
11	Vizianagram-Raipur . . . . .	316	281.00	50	50	50	50	81
12	Ganjam District Light Railways . . . . .	246	65.33	10	20	20	25	...
13	Gondia-Chanda (including Brahmपुरi-Nagpur Branch). . . . .	222	100.82	40	40	21	...	...
14	Ranchi Plateau . . . . .	127	45.04	10	20	15	...	...
15	Panchkura Luff Point . . . . .	25	28.00	14	14	...	...	...
16	Chindwara-Nagpur . . . . .	28	9.00	5	4	...	...	...
<b>EASTERN BENGAL STATE RAILWAY SYSTEM—</b>								
17	Katihar-Malda . . . . .	50	42.00	30	12	...	...	...
18	Sara Bridge . . . . .	...	130.00	30	40	40	20	42
19	Mymensingh-Netrokana-Bara Ari . . . . .	36	20.93	10	11	...	...	...
20	Singhani-Sherpur-Nalita%ari . . . . .	25	12.39	10	3	...	...	...
21	Dacca-Aircha . . . . .	45	58.14	10	20	20	8	...
22	Serajgang-Natore . . . . .	60	...	10	10	...	...	...
<b>BENGAL AND NORTH-WESTERN, ROHILKUND AND KUMAON RAILWAY SYSTEMS—</b>								
23	Jaunpur-Azimgarh . . . . .	35	14.00	4	10	...	...	...
24	Lalkua-Kashipur . . . . .	40	10.00	3	7	...	...	...
25	Gograghat-Sitapur . . . . .	58	25.00	5	20	...	...	...
26	Moradabad-Ramnagar . . . . .	47	16.50	6	11	...	...	...
<b>ODISH AND ROHILKHAND RAILWAY SYSTEM—</b>								
27	Allahabad-Jaunpur . . . . .	58	30.22	3	27	...	...	...
28	Pilibhit-Barmdeo . . . . .	40	20.00	10	10	...	...	...
<b>NORTH-WESTERN RAILWAY SYSTEM—</b>								
29	Shahdera-Lyallpur . . . . .	72	36.00	6	20	10	...	...
30	Larkhana-Kambar . . . . .	33	20.00	10	10	...	...	...
31	Kohat-Bannu . . . . .	83	40.00	20	20	...	...	...

Appendix A.  
Important  
documents.

## Appendix A—continued.

## STATEMENT B—concluded.

List of new lines to be taken up as funds permit, with the estimated yearly provision required to ensure an economical rate of progress when once started.

(Lakhs of rupees.)

No.	Railway.	Length in Miles.	Estimated cost.	APPROXIMATE AMOUNT EACH YEAR.				
				1st.	2nd.	3rd.	4th.	Future.
			Lakhs.	Lakhs.	Lakhs.	Lakhs.	Lakhs.	Lakhs.
<b>NORTH WESTERN RAILWAY SYSTEM—concl'd.</b>								
32	Khyber Railway . . . . .	35	35.00	10	10	15	...	...
33	Kabul River Railway . . . . .	55	127.09	10	20	30	40	27
34	Kashmir Railway . . . . .	70	70.00	10	20	30	10	...
35	Jullundar-Kapurthala (British Section) . . . . .	7	3.99	3	...	...	...	...
<b>BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM—</b>								
36	Bombay-Sind Connection (Virangam-Badin) . . . . .	290	280.00	10	30	30	30	180
37	Deesa-Tharad . . . . .	85	22.72	10	13	...	...	...
38	Nagda-Barar Muttra-Aligarh . . . . .	392	361.16	20	40	40	50	232
<b>JODHPUR-BIKANERE RAILWAY SYSTEM—</b>								
39	Bara-Ajmer-Marwar . . . . .	213	137.00	16	48	48	25	...
<b>GREAT INDIAN PENINSULA RAILWAY SYSTEM—</b>								
40	Warora-Chanda . . . . .	42	46.00	10	20	16	...	...
41	Itarsi-Nagpur . . . . .	250	...	10	10	10	10	...
42	Multa-Wardha . . . . .	91	...	6	10	10	10	...
43	Warora-Belapur . . . . .	160	31.94	6	20	7	...	...
44	Belapur-Warangal . . . . .	38	...	5	10	10	10	...
45	Harpalpur-Kalpi . . . . .	102	15.91	10	6	...	...	...
46	Harpalpur-Nowgong . . . . .	19	2.98	3	...	...	...	...
47	Khandwa-Akola-Basim-Purna . . . . .	252	170.00	20	40	40	40	30
48	Khamgaon-Jaina . . . . .	94	32.65	10	10	13	...	...
<b>MADRAS RAILWAY—</b>								
49	Pudalur-Dindigal . . . . .	115	85.00	10	30	30	15	...
50	Salem-Atur . . . . .	36	17.60	7	11	...	...	...
<b>SOUTHERN MAHARATTA RAILWAY SYSTEM—</b>								
51	Bezwadā-Masulipatam . . . . .	60	27.90	7	10	10	...	...
52	Kurnool Road, Kurnool . . . . .	32	7.11	8	...	...	...	...
53	Guntur-Repalle . . . . .	38	17.34	7	10	...	...	...
54	Ibirangipuram-Gurzala (famine feeder) . . . . .	51	12.00	3	9	...	...	...
<b>SOUTH INDIAN RAILWAY SYSTEM—</b>								
55	Nanjangud-Erode . . . . .	121	123.03	23	50	50	...	...
56	Trichinopoli-Tirukoilur . . . . .	97	74.43	10	30	35	...	...
57	Rameswaram Extension . . . . .	12	119.97	10	60	60	...	...
58	Kalikiri-Rayachoti (famine feeder) . . . . .	34	10.76	3	8	...	...	...
<b>BURMA RAILWAYS SYSTEM—</b>								
59	Pegu-Syriam . . . . .	100	64.00	10	20	34	...	...
60	Sagaing bridge . . . . .	...	44.44	10	20	15	...	...

## Appendix A—continued.

## STATEMENT C.

Appendix A.

Important documents.

Statement showing the lines of railway proposed, or which were or are the subject of negotiations, for construction by private Companies.

No.	Name of railway.	Length.	Estimated cost.	REMARKS.
		Miles.	Rs.	
<i>Bengal—</i>				
1	Burdwan-Cutwa . . . . .	34	26,48,000	} Negotiations pending.
2	Hooghly-Cutwa-Ahmedpur (or Sainthia)	97	95,12,000	
3	Mymensingh, <i>via</i> Netrakona, to Bara-Ari, with branch from Shambhuganj to Gauripur . . . . .	36½	22,16,000	} Negotiations in progress.
4	Phulbari-Sumjhia . . . . .	13	4,42,000	} Negotiations pending.
5	Shibnibash (Kissengunge)—			
	Kotchandpur-Magura . . . . .	64	49,94,000	
6	Singhjani, <i>via</i> Sherpur, to Nalitabari . . . . .	25	12,39,000	} Negotiations in progress.
<i>Hyderabad—</i>				
7	Raichur-Wondalli . . . . .	43	12,53,000	} Concession granted in June 1900, but scheme no further advanced.
<i>Madras—</i>				
8	Bellary-Rayadrug . . . . .	33	8,33,000	} Under construction out of the Famine Insurance Grant.
9	Hospet-Kottur . . . . .	38	10,37,000	
10	Berhampore-Russelkonda . . . . .	49	14,91,000	} Negotiations have not advanced.
11	Bezwada-Masulipatam . . . . .	50	27,89,000	} Negotiations still proceeding, the promoters having asked for the exclusion of the Kurnool Road (Dhone)—Kurnool railway from the scheme and for an extension of time for six months from the date of approval of the revised estimates for the remainder.
12	Guntur-Repalle . . . . .	38	17,34,000	
13	Kurnool Road (Dhone)—Kurnool . . . . .	32	7,11,000	
14	Phirangipuram-Grvzala . . . . .	51	12,60,000	
15	Vizianagram-Raipur with Sointilla branch . . . . .	359	2,81,05,000	} Negotiations terminated owing to the promoters' inability to form a company on the terms offered.
<i>North-West Frontier—</i>				
16	Sarai Kala-Abbottabad-Kashmir frontier . . . . .	80	91,00,000	} Consideration postponed pending a decision on the Kashmir railway scheme.
<i>Punjab—</i>				
17	Amritsar-Tarn Taran-Patti . . . . .	27	13,39,000	} Negotiations in progress.
18	Jullundur-Hoshiarpur . . . . .	24	14,10,000	} Negotiations pending.
19	Kangra Valley . . . . .	90	59,35,000	} Negotiations closed owing to the promoters' inability to form a company on the terms offered.
20	Rawalpindi-Murree with extensions to Kuldana and Gharial . . . . .	50	41,34,000	} Negotiations in progress.
<i>Rajputana—</i>				
21	Barau-Ajmere-Marwar . . . . .	213	1,36,67,000	} Proposals rejected owing to the promoters' requiring a firm guarantee in sterling.



Appendix A.  
Important documents.

Appendix A—continued.

STATEMENT D.

Memorandum on the construction of Railways.

At the commencement of 1903-04, i.e., the 1st April 1903, the total length of railway open for traffic was 26,307.72 miles, made up as follows:—

	Miles.	Miles.
East Indian	1,931.15	
Bengal Central (a)	125.01	
Bengal-Nagpur	1,685.17	
Indian Midland	(b) 796.53	
Great Indian Peninsula	1,641.63	6,751.51
(i) Khamgaon	6	
Amraoti	(b) 13.11	
Bhopal-Itarsi (British section)	(c) 131.14	
Godhra-Buliam-Nagda	(d) 20.53	
Bezwa extension	(e) & (f) 387.19	
Madras (North-East line)	(g) & (h) 3,077.59	
North Western	1,033.64	4,418.16
(ii) Oudh and Rohilkhand	377.65	
Eastern Bengal	260.68	
(iii) Bombay, Baroda and Central India	688.10	1,348.78
Madras	(i) 163.24	
Delhi-Umballa-Kalka	(j) 32.25	
Tarkessur	(k) 78.76	875.47
South Behar	(l) 434.72	
(iv) Southern Punjab	(m) 32.04	
Hardwar-Dehra	(n) 165.43	
Tapti Valley	(o) 145.63	
Bina-Gooma-Baran	(p) 113.27	
Bhopal-Ujjain	(q) 44.28	
(v) The Nizam's Guaranteed State	330.13	709.93
Nagda-Ujjain	(r) 34.32	
Petlad-Cambay (Anand-Tarapur section)	(s) 21.50	
Petlad-Cambay (Tarapur-Cambay section)	(t) 10.92	
Kolar Gold-fields	(u) 9.68	
(vi) Rajpura-Bhatinda	(v) 107.05	
Jammu and Kashmir (Native State section)	(w) 15.92	201.63
Ludhiana-Dhuri-Jakhal	(x) 78.66	
<b>Bengal and North-Western—</b>		
Tirhoot section	516.89	
Company's section (1)	813.72	
Rohilkund and Kumaon (Lucknow-Bareilly section)	(y) 231.17	
(ii) Rajputana-Malwa	(z) & (aa) 1,648.38	7,994.50
Palaupur-Deesa	(ab) 17.28	
Southern Mahratta	(ac) 1,013.01	
Guntakal-Mysore frontier	(ad) 119.50	
Mysore section (Southern Mahratta)	(ae) 296.23	
Nilgiri	(af) 16.90	
South Indian	(ag) 1,123.13	
Tanjore District Board	(ah) 71.11	
Assam-Bengal	(ai) 643.71	
Burma	(aj) 1,311.44	
Jodhpur-Hyderabad (British section)	(ak) 123.98	
Timmevelly-Quilon (Travancore) (British section)	(al) 19.05	
(viii) Eastern Bengal—		
Northern, Behar and Kamia-Dhubri sections (including the Kamia-Kurigram branch, and British section, Cooch Behar-Santabrari extension, 2' 6" gauge)	535.24	700.78
Dacca section	(am) 85.82	
Cawnpore-Burhwal (metre gauge link)	(an) 78.40	
Deogaon	(ao) 4.79	
Brahmaputra-Sultabpur	(ap) 59.37	
Mylasasingh-Jamalpur-Jagannathganj	(aq) 53.14	
Rohilkund and Kumaon (Company's section)	(ar) 53.92	
Bengal Doocars	(as) 36.40	
(ix) Bengal Doocars extensions	108.78	500.67
Dibra-Sadiya	(at) 77.50	
Ledo and Tikak-Margherita Colliery	(au) 11.00	
Ahmedabad-Parantij	(av) 54.70	
Saganli-Raxaul	(aw) 18.09	
Ahmedabad-Dholka	(ax) 25.00	
Vijapur-Kalol-Kadi	(ay) 28.44	
Gaekwar's Mehsana	(az) 92.63	
Hyderabad-Godsvari Valley	(ba) 391.42	
(x) Kolhapur	(bb) 28.27	712.58
Hindapur (Yesvanpur-Mysore frontier)	(bc) 51.35	
Mysore-Nanjangud	(bd) 15.80	
Birur-Shimoga	(be) 37.92	
Shoranur-Cochin	(bf) 64.75	
Jodhpur-Bikaner	700.28	
Udaipur-Chitor	(bg) 67.30	
(xi) Bhavnagar-Gondal-Junagad-Forbandar	(bh) 334.19	1,223.04
Jetalpur-Rajkot	(bi) 46.21	
Jamnagar	(bj) & (bk) 54.22	
Dhrangadra	(bl) 20.83	
West of India Portuguese	(bm) 51.11	
(xii) Pondicherry	(bn) 7.85	73.61
Karaikkal-Peralam	(bo) 14.65	
(xiii) Bengal-Nagpur—Baipur-Dhamtari branch (2' 6")	(bp) 56.24	
(xiv) Jorhat (2' 6")	(bq) 30.00	
Nowshera-Durgai (2' 6")	(br) 40.25	
Kushalgarh-Kohat-Thal (2' 6")	(bs) 29.70	106.13
Dasdot Light (2' 6")	(bt) 6.18	
Darjeeling-Himalayan (2' 6")	(bu) 51.00	
Barui Light (2' 6")	(bv) 21.59	
Howrah-Amra (2' 6")	(bw) 28.69	
Howrah-Sheakala (2' 6")	(bx) 19.75	
(xv) Banaghat-Krishnagar (2' 6")	20.25	239.78
Tarakeshwar-Magra (2' 6")	(by) 31.12	
Tezpur-Balipara (2' 6")	(bz) 20.10	
Powayan Light (2' 6")	(ca) 39.60	
Thaton-Duyinzaik Light (2' 6")	(cb) 7.78	
Gaekwar's Dabhoi (2' 6")	(cc) 78.80	
(xvi) Rajpipla (2' 6")	(cd) 37.37	268.99
Parlakimedi Light (2' 6")	(ce) 24.68	
Gwalior Light (2' 6")	(cf) 126.14	
(xvii) Cooch Behar (2' 6")	(cg) 33.60	
Morri (2' 6")	(ch) 94.38	

	Miles.	Mile
5' 6" gauge—		
(i) State lines worked by companies . . . . .	6,751.51	
(ii) State lines worked by the State . . . . .	4,418.16	
(iii) Guaranteed companies . . . . .	1,348.78	
(iv) Assisted companies . . . . .	875.47	
(v) Lines owned by native states and worked by companies . . . . .	709.93	
(vi) Lines owned by native states and worked by state railway agency . . . . .	201.63	
<b>14,305.4</b>		
3' 3 3/4" gauge—		
(vii) State lines worked by companies . . . . .	7,994.50	
(viii) State lines worked by the State . . . . .	700.78	
(ix) Assisted companies . . . . .	500.67	
(x) Lines owned by native states and worked by companies . . . . .	712.58	
(xi) Lines owned and worked by native states . . . . .	1,223.04	
(xii) Foreign lines . . . . .	73.61	
<b>11,205.16</b>		
Special 2' 6" and 2' 0" gauges—		
(xiii) State lines worked by companies . . . . .	56.24	
(xiv) State lines worked by the State . . . . .	106.13	
(xv) Assisted companies . . . . .	239.78	
(xvi) Lines owned by native states and worked by companies . . . . .	266.99	
(xvii) Lines owned by native states and worked by state railway agency . . . . .	33.60	
(xviii) Lines owned and worked by native states . . . . .	94.38	
<b>797.08</b>		
<b>TOTAL . . . . .</b>	<b>26,307.72</b>	

(a) Although for convenience classed amongst State railways, this line is the property of the Bengal Central Railway Company.  
 (b) Worked by the Great Indian Peninsula Railway Company.  
 (c) Worked by the Bombay, Baroda and Central India Railway Company.  
 (d) Worked by His Highness the Nizam's Guaranteed State Railways Company.  
 (e) Worked by the Madras Railway Company.  
 (f) Including 2.66 miles laid on a mixed (5' 6" and 3' 3 3/4") gauge, and 0.31 mile on the 3' 3 3/4" gauge.  
 (g) Including 5.63 miles of military line not used for public traffic.  
 (h) Including 26.28 miles of mixed (5' 6" and 3' 3 3/4") gauge between Kot Kapura and Bhatinda, worked over by the North Western State and Rajputana-Malwa railways.  
 (i) Worked by the East Indian Railway Company.  
 (j) Worked by the North Western State railway.  
 (k) Worked by the Oudh and Rohilkhand State railway.  
 (l) Includes the Viramgam-Wadhwan section, 39.23 miles, converted from the 5' 6" gauge to the 3' 3 3/4" gauge on 14th December 1902.  
 † The line was purchased by Government with effect from the 1st January 1903.  
 ‡ Excludes 39.23 miles of the Viramgam-Wadhwan section converted from the 5' 6" gauge to the 3' 3 3/4" gauge on the 14th December 1902.

(i) Although for convenience classed amongst State railways, this line is the property of the Bengal and North-Western Railway Company.  
 (m) Including 2.10 miles at Ujjain and 3.07 miles between Juma East Bank and Agra Cantonment, laid on the 5' 6" gauge.  
 (n) Worked by the Southern Mahratta Railway Company.  
 (o) Worked by the South Indian Railway Company.  
 (p) Worked by the Jodhpur-Bikaner Railway.  
 (q) Excluding 3.66 miles of the Lucknow-Bareilly railway between Daliganj and Aishbagh, but including the length, Bara Banki to Burhwal, 16.79 miles and the length over the Cawnpore Bridge, 0.69 mile, laid on a mixed gauge.  
 (r) Worked by the Eastern Bengal State railway.  
 (s) Worked by the Assam Railways and Trading Company.  
 (t) Worked by the Bengal and North-Western Railway Company.  
 (u) Including 4.87 miles of Bhavnagar Dock estates and Junagad quarry lines.  
 (v) Worked by the Bhavnagar-Gondal-Junagad-Forbandar railway.  
 (w) Including 3.99 miles of Bedi-Bandar Dock estate siding.  
 (x) Worked by the Rohilkund and Kumaon Railway Company.  
 (y) Worked by the Bengal-Nagpur Railway Company.  
 (z) Classed as a State railway in consequence of the lease in perpetuity of the Assigned Districts of Berar to the British Government with effect from the 1st October 1902, and treated as an integral part of the Great Indian Peninsula railway undertaking as from the 1st January 1903.

Appendix A.  
Important documents.

And the mileage under construction or sanctioned for construction on the same date was 2,649·70 miles, as follows:—

	Miles.	Miles.
<b>5' 6" gauge—</b>		
(i) State lines worked by companies	441·92	
(ii) State lines worked by the State	303·95	
(iii) Guaranteed companies	61·07	
		806·94
<b>3' 3½" gauge—</b>		
(iv) State lines worked by companies	613·33	
(v) State lines worked by the State	151·62	
(vi) Assisted companies	53·29	
(vii) Lines owned by native states and worked by companies	70·15	
(viii) Lines owned and worked by native states	72·85	
		961·24
<b>Special (2' 6" and 2' 0") gauges—</b>		
(ix) State lines worked by companies	297·50	
(x) State lines worked by the State	62·03	
(xi) Assisted companies	394·62	
(xii) Lines owned by native states and worked by companies	127·37	
		881·52
<b>TOTAL</b>		<b>2,649·70</b>

There was thus a grand total of railways completed and in hand, on the 1st April 1903, of miles **28,957·42**

	Miles.	Miles.	Miles.
<b>East Indian—</b>			
Shikohabad to Farukhabad	65·82		
Manpur to 0·87 mile beyond Gurpa	25·25		
Mile 0·37 beyond Gurpa to Kodarma	18·19		
Kodarma to Hariharpur	66·35		
Mile 170½ on Jharia branch to Chandore	4·18	175·68	
Jharia to Dhanbaid	3·75		
Tara siding	1·75		
Northern half of the Malkera-Katrasgarh cross connection	0·71		
<b>Bengal-Nagpur—</b>			
Chattrashi to Noducha in the Chattrashi coal-fields.	4·81		
(i) Bhojudih to Hariharpur	27·90		
Bhojudih to Parthadhi	1·45	57·73	441·92
Bhojudih to Mohuda, including the Bhaga connection	21·36		
Bhowra siding	1·50		
Southern half of the Malkera-Katrasgarh cross connection.	0·71		
<b>Indian Midland—</b>			
Ait to Kunch			6·85
Aggra-Delhi Chord			121·16
Madras (North-East line)—			
Korakkapettai to Basin Road			0·93
Azhikal-Mangalore extension			77·27
<b>North Western—</b>			
Jech Doab line, Northern section—			
Malakwal to Karana	51·40		
From a point 12 miles south of Quetta to Nuski	52·50	133·90	
<b>Oadh and Bohilkhand—</b>			
Sultanpur to Chilhilla	23·00		
Allahabad to Siwan	11·30		
Sultanpur to Fyzabad	30·37	85·14	303·95
Balawan to Madhoganj	14·47		
<b>Eastern Bengal—</b>			
Extension of Chittpore terminus	1·68		
Panchooria to the Ganges (b)	6·00		84·91
Kankurgaobi Chord	2·25		
Bansgat to Mursbidabad	26·00		
<b>Bombay, Baroda and Central India—</b>			
Godhra to Baroda			44·00
<b>Madras—</b>			
Tellichery to Azhikal			17·07
			61·07
<b>Bengal and North Western—</b>			
<b>Tirhoot section—</b>			
Sakri to Jainagar (a)	30·47		
<b>Company's section—</b>			
Aunrihar to Jaunpur	33·14		
Uda Bazar to Tulaipur	53·54	109·68	
Galsanri to Jarwa	12·66		
Gorakhpur to Bagaha	60·94		
<b>Bohilkhand and Kumon (Lucknow-Dewoolly section)—</b>			
Dudhwa to the Mohan river		5·03	
<b>Rajputana-Malwa—</b>			
Bewari-Phulera Chord (a)			133·22
<b>Famine lines (Madras Presidency)—</b>			
Bellary to Rayadrag	3·00		
Hospet to Kottur	38·10	71·10	
<b>South Indian—</b>			
Saidapet to Madras	8·38		
Tirupachettu to Sivagunga (2)	9·00	17·38	613·3
<b>Tinnevely-Quilon (Travancore) (British section)—</b>			
Kallidankurichi to the British frontier near Shencottah		81·33	
<b>Tanjore District Board—</b>			
Pattukkottai to Arantangi	28·35		
Adirampattam and Thambikkottai Salt sidings and Arantangi Quarry branch	5·53	33·88	
<b>Assam-Bengal—</b>			
Damchura to Lumding		100·74	
<b>Burma—</b>			
Letpadan to Thuruwaw	23·00		
Hezada to Hezada shore	3·00	26·00	
<b>Eastern Bengal—</b>			
Golokganj to the Brahmaputra opposite Gauhati			161·62
<b>Bengal Doocars—</b>			
Dalgona to Madarihat		9·80	
<b>Noakhali (Bengal)—</b>			
Laksam via Noakhali to Sahab-Ghatta (Ishakbali)		34·95	53·29
<b>Ahmedabad-Dholka—</b>			
Bavla to Dholka		8·84	
<b>Vijapur-Kalol-Kadi—</b>			
Kalol to Kadi		12·20	
<b>Tinnevely-Quilon (Travancore) (Native State section)—</b>			
Quilon to the British frontier near Shencottah		67·85	70·15
<b>Jaipur—</b>			
Sanganer to Siwal-Madhapur (c)			72·85
<b>Bengal-Nagpur (Jubbulpore-Gondia extension) (2' 6")—</b>			
Jubbulpore to Gondia	113·43		
Neinpur to Mandla	21·75	252·67	
Neinpur to Chindwara	87·49		
<b>Famine lines (Madras Presidency)—</b>			
Morappur to Dharmapuri	18·37		
Tirupattur to Krishnagiri	26·46	44·83	297·50
<b>Khushalgarh-Kohat-Thal (2' 6")—</b>			
Kohat to Thal			62·03
<b>Barsi Light (2' 6")—</b>			
Barsi Town to Pandbarpur	30·67		
Barsi Town to Tadwala	26·70	57·37	
<b>Kalka-Simla (2' 6")</b>			
Bukhtiarpore-Behar Light (2' 6")—			60·00
Bukhtiarpore to Behar		18·75	
<b>Madras District Board (2' 6")—</b>			
Ammayanayakkanur to Kotagudi	55·00		
Periyakulam to Krishna-Manaik's Tope	5·00	60·00	
Theni to Kuruvannth	33·00		
<b>Shahdara-Saharaupur Light—</b>			
Shahdara to Saharaupur	95·00		
Baraut to Meerut	30·00	125·00	394·63
<b>Howrah-Amta (2' 0")—</b>			
Jayaballubpur to Amtpur	9·50		
Amtpur to Champadanga (2)	9·00	21·00	
Amtpur to Rajbulhat (2)	3·50		
<b>Dwara-Therria (2' 6")—</b>			
Therria Ghat to Maolong (a)			19·50
Maolong to Noorpur or Dwara			
<b>Bewah (2' 6")—</b>			
Bewah to Satna (a)			31·81
<b>Gaekwar's Dabhoi (2' 6")—</b>			
Padra to Mobha			9·20
<b>Gwalior Light (2' 0")—</b>			
Gwalior to Sabulgarh			57·83
<b>Moharbanji—</b>			
Baripada Road to Baripada			28·50

(a) Commencement of work not authorized.  
(b) Constructed but not worked.  
(c) Completion deferred.  
(d) Work not commenced.

Appendix A.  
Important documents.

Appendix A—continued.

	Miles.	Miles.	Miles.
(I) East Indian— Oudal to Salinthia Khurja to Bapur Bengal-Nagpur— Jamadhoba to Ballhary Great Indian Peninsula— Wardah Coal branch— Warora to Bellarpur (c) Salem-Attur (c) North Western— Hyderabad (Siad) to Badin Jech Doab line, southern section— Karana to Sherkot Road Oudh and Rohilkhand— Phaphaman to Zaiarabad Meerut to Bapur Eastern Bengal— Moradabad to Jeaganj Jeaganj to Laligola (II) Southern Punjab— Ludhiana to MacLeod Ganj	43-83 38-87 8-50 37-00 30-06 61-00 27-85 57-50 19-50 8-00 18-50	82-29 161-95 158-95 77-00 23-50	161-95 258-35 163-90
(iv) Bengal and North-Western— Tirhoot section— Manai to Bapthahi Bettiah to Bagaha Sihura to Murliganj Bairagnia to Bikna Thori Company's section— Kopaganj to Dohrightat Nilgiri— Coonoor to Ootacamund Burma— Pegu to Martaban (b) (v) Eastern Bengal— Kannia to Bonarpara Rohilkund and Kumaon (Company's section)— Bareilly to Soron Moradabad to Bamnagar Lalkua to Kasipur	60-01 48-35 18-81 79-55 21-70 11-50 121-27 44-25 50-00 47-00 45-00	329-22 11-50 121-27 44-25 149-00	361-90 44-25 149-00
(vii) North-Western— Jullundur to the British Frontier (a) (viii) Baraset-Basirhat (2' 6")— Baraset to Basirhat Tarakeshwar-Magra (2' 6")— Magra to Tribeni (ix) Gaekwar's Dabhoi (2' 6")— Mobha to Kanjat Gwalior Light (2' 6")— Sabalgarh to Sheopur (x) Jullundur-Kapurthala-Sultanpur (Native State section)— Sultanpur to the British frontier (a) (xi) Cutch (2' 6")— Anjar to Tuna	6-80 23-00 2-15 6-50 69-00 23-02 11-88	6-80 28-15 75-50 22-02 11-88	6-80 28-15 75-50 22-02 11-88
(xii) East Indian— Jharia to Dhanbaid Northern Section of the Malkera-Katrasgarh cross connection Tatra siding Bengal-Nagpur— Bhojudih to Bhaga Bhaga to Malkera Southern section of the Malkera-Katrasgarh cross connection Bhowra siding Indian Midland— Ait to Kunch North Western— Jech Doab line, Northern section— Malakwal to Saroda Oudh and Rohilkhand— Chilibill to Sultanpur Phaphamana to Siwait Sultanpur to Fyzabad Balamao to Madhoganj Eastern Bengal— Extension of Chitpore terminus (xiv) Madras— Telliachery to Azbikal Bombay, Baroda and Central India— Godhra to Baroda	3-79 8-87 1-75 6-66 8-79 0-71 2-50 8-85 46-25 22-00 3-03 26-37 14-47 0-98 16-47 44-00	6-21 16-68 8-85 76-47 0-98 60-47	33-72 16-68 8-85 76-47 0-98 60-47
(xv) Bengal and North-Western— Company's Section— Kopaganj to Dohrightat Aunrihar to Jaunpur Rohilkund and Kumaon (Lucknow-Bareilly section)— Dudhwa to Gaudan Chowki (the Mohan river) Tinnevely-Quilon (Travancore) (British section)— Kallidiskurichi to Shencottah Tanjore District Board— Pattukkottai to Amntangi Assam-Bengal— Damechra to Lumding. Burma— Letpadam to Tharawaw Henzada to Henzada shores Noakhali (Bengal)— Laksam to Sahab Ghatta Bengal Doonars extension— Dalgaon to Madarihat Ahmedabad-Dholka— Bavla to Dholka (xvi) Vijapur-Kelol-Kadi— Kalol to Kadi (xvii) Tinnevely-Quilon (Travancore) (Native State section)— Quilon to Ponalur	21-70 38-14 6-87 8-79 0-71 2-50 23-07 2-48 34-00 9-81 8-50 12-20 28-00	57-84 249-21 25-53 34-00 9-81 8-50 40-20	57-84 249-21 25-53 34-00 9-81 8-50 40-20
(xviii) Bengal-Nagpur (Jabalpore-Gondia extension) (2' 6")— Gondia to Nainpur Nainpur to Seoni (xix) Khushalgarh-Kohat-Thal (2' 6")— Kohat to Thal (xx) Bukhtiarpore-Behar Light (2' 6")— Bukhtiarpore to Behar Kalka-Simla (2' 6")— Kalka to Simla (xxi) Gaekwar's Dabhoi (2' 6")— Padra to Kanjat	74-50 47-13 19-50 59-44 15-70	121-63 62-08 77-94 15-70	121-63 62-08 77-94 15-70

During 1903-1904, i.e., from 1st April 1903 to 31st March 1904, 1,281.77 miles of new railway have been authorized as follows:—

	Miles.	Miles.
5' 6" gauge—		
(i) State line worked by companies . . . . .	161-95	
(ii) State lines worked by the State . . . . .	258-35	
(iii) Assisted companies . . . . .	162-90	
		583-20
3' 3½" gauge—		
(iv) State lines worked by companies . . . . .	361-99	
(v) State lines worked by the State . . . . .	44-25	
(vi) Assisted companies . . . . .	148-00	
		554-24
Special (2' 6" and 2' 0") gauges—		
(vii) State lines worked by the State . . . . .	6-80	
(viii) Assisted companies . . . . .	28-15	
(ix) Lines owned by native states and worked by companies . . . . .	75-50	
(x) Lines owned by native states and worked by state railway agency . . . . .	22-02	
(xi) Lines owned and worked by native states . . . . .	11-86	
		144-33
<b>TOTAL</b>		<b>1,281-77</b>

And 837.81 miles have been or are likely to be opened to public traffic as follows:—

	Miles.	Miles.
5' 6" gauge—		
(xii) State lines worked by companies . . . . .	33-72	
(xiii) State lines worked by the State . . . . .	123-70	
(xiv) Guaranteed companies . . . . .	60-47	
		217-89
3' 3½" gauge—		
(xv) State lines worked by companies . . . . .	249-21	
(xvi) Assisted companies . . . . .	58-21	
(xvii) Lines owned by native states and worked by companies . . . . .	40-20	
		342-62
Special (2' 6") gauge—		
(xviii) State lines worked by companies . . . . .	121-68	
(xix) State lines worked by the State . . . . .	62-08	
(xx) Assisted companies . . . . .	77-94	
(xxi) Lines owned by native states and worked by companies . . . . .	15-70	
		277-30
<b>TOTAL</b>		<b>837-81</b>

( ) Question of gauge not yet settled.  
(b) With a steam ferry to connect with the port of Moulemein—Commencement of work not yet authorized.  
(c) Commencement of work not yet authorized.

The total length of open line at the commencement of 1904-1905, i.e., on the 1st April 1904, will, therefore, 27,143.36 miles, comprising—

	Miles.	Miles.
<b>5' 6" gauge—</b>		
(i) State lines worked by companies	6,787.62	
(ii) State lines worked by the State	4,537.92	
(iii) Guaranteed companies	1,409.24	
(iv) Assisted companies	876.05	
(v) Lines owned by native states and worked by companies	709.93	
(vi) Lines owned by native states and worked by state railway agency	201.63	
		14,522.39
<b>3' 3 1/2" gauge—</b>		
(vii) State lines worked by companies	8,242.58	
(viii) State lines worked by the State	700.71	
(ix) Assisted companies	553.87	
(x) Lines owned by native states and worked by companies	752.78	
(xi) Lines owned and worked by native states	1,223.04	
(xii) Foreign lines	73.61	
		11,546.59
<b>Special (2' 6" and 2' 0") gauges—</b>		
(xiii) State lines worked by companies	177.87	
(xiv) State lines worked by the State	168.16	
(xv) Assisted companies	317.70	
(xvi) Lines owned by native states and worked by companies	232.89	
(xvii) Lines owned by native states and worked by state railway agency	33.60	
(xviii) Lines owned and worked by native states	94.35	
		1,074.38
<b>TOTAL</b>		<b>27,143.36†</b>

	Miles.	Miles.
(i) East Indian Bengal Central (a)	1,036.47	
Bengal-Nagpur	125.01	
Indian Midland	1,094.24	
(ii) Great Indian Peninsula Bhopal Itarsi (British section)	1,561.83	6,787.62
Godhra-Rutlam-Nagda	13.11	
Berwada extension	141.14	
Madras (North-East line)	31.47	
North Western	497.10	
(iii) Oudh and Rohilkhand Eastern Bengal	3,115.13	4,537.92
(iv) Bombay, Baroda and Central India Madras	1,141.11	
Dolbi-Umballa-Kalka	278.63	
Tarakeswar	504.83	1,409.24
South Behar	904.66	
Southern Punjab	102.31	
Hardwar-Dehra	22.23	
Tapti Valley	78.76	876.05
Bina-Goonna-Barua	425.33	
Bhopal-Ujjain	33.04	
Bhopal-Itarsi (Native State section)	155.43	
The Nizam's Guaranteed State	145.03	
Narda-Ujjain	113.27	
Patala-Cambay (Anand-Tarapur section)	44.28	709.93
Patala-Cambay (Tarapur-Cambay section)	39.13	
Kohat Gold-fields	134.33	
Bajpura-Bhatinda	31.50	
Jammu and Kashmir (Native State section)	10.93	
Ludhiana-Punjab-Jabal	9.23	
	107.05	
	15.22	201.63
	78.63	
(vii) Bengal and North-Western—Tirhoot section	516.83	
Company's section (f)	870.90	
Rohilkhand and Kumaon (Lucknow-Bareilly section)	237.04	
Bajputana-Malwa	1,648.36	6,787.62
Palampur Doon	17.33	
Southern Madras	1,042.04	
Guntakal-Mysore frontier	119.60	
Mysore section (Southern Mahratta)	298.23	
Bilgiri	16.00	8,242.58
South Indian	1,123.13	
Tinnevely-Quilon (Travancore) (British section)	48.93	
Tanjore District Board	89.43	
Assam-Bengal	74.08	
Burma	1,333.97	
Jodhpur-Hyderabad (British section)	123.99	
Eastern Bengal—		
(viii) Northara Behar and Kania-Dhubri sections (including the Kania-Kurigram branch and British section, Cooch Behar-Santabrari extension 2' 6" gauge)	535.15	700.71
Dacca section	55.92	
Cawnpore-Burhwal (Mitra gauge link)	79.00	
Deoghar	4.79	
Brahmaputra-Sultampur (b)	50.37	
Mymensingh-Jamulpur-Jagannathganj	53.14	
Rohilkhand and Kumaon (Company's section)	53.92	
Bengal Doon	34.43	
Bengal Doon extensions	118.56	553.87
Dibru-Sadiya	77.00	
Ledo and Tikak-Margherita Colliery	11.00	
Ahmedabad-Paranji	54.70	
Sagauli-Bazaul (b)	18.00	
Ahmedabad-Dholka	33.50	
Noakhali (Bengal)	34.00	
Gaekwar's Malwa	32.63	
Hyderabad-Godavari Valley	361.42	
Kolhapur	29.27	
Hindupur (Tosvanpur-Mysore frontier)	51.35	
(ix) Mysore-Nanjangud	15.80	752.78
Vijapur-Kol-Kadi	41.84	
Shoranur-Cochin	61.75	
Birur-Shimoga	37.83	
Tinnevely-Quilon (Travancore) (Native State section)	123.00	
Jodhpur-Bikaner	700.29	
Udaipur-Chittor	87.30	
Bhavnagar-Gondal-Junagad-Forbandar	334.19	
Jetalpur-Bajkot	46.21	1,223.04
Jamnagar	54.23	
Dhrangadra	20.83	
(x) West of India Portuguese	51.11	
Pondicherry	7.95	
Karikkal-Peralam	14.65	73.61
(xiii) Bengal-Nagpur—		
Jubbulpore-Gondia extension (2' 6")	121.63	177.87
Balpur-Dhamtari branch (2' 6")	56.24	
Jorhat (2' 0")	30.00	
(xiv) Nowshera-Durgal (2' 6")	340.25	108.16
Dandot Light (2' 6")	3.15	
Khushalgarh-Kohat-Thal (2' 6")	191.73	
Darjeeling-Himalayan (2' 0")	51.00	
Rare Light (2' 6")	21.50	
Howrah-Amra (2' 0")	28.09	
Howrah-Sheakhnia (2' 0")	19.75	
Ranaghat-Krishnagar (2' 6") (d)	20.25	
(xv) Tarakeswar-Magra (2' 6")	31.12	317.70
Tespora-Balipara (2' 6")	30.10	
Powayan (2' 6")	399.60	
Thateo-Dryimgak Light (2' 6")	7.78	
Bukhtiarpore Behar Light (2' 6")	18.50	
Kalka-Simla (2' 6")	59.41	
Gaekwar's Dabhol (2' 6")	94.50	
(xvi) Bajpils (2' 6")	37.37	261.69
Parlakimedi (2' 6")	24.63	
Gwalior Light (2' 0")	126.14	
(xvii) Cooch Behar (2' 6") (e)		33.60
(xviii) Morvi (2' 6")		94.35

(a) Although for convenience classed amongst State railways, this line is the property of the Bengal Central Railway Company.  
 (b) Worked by the Great Indian Peninsula Railway Company.  
 (c) Worked by the Bombay, Baroda and Central India Railway Company.  
 (d) Worked by His Highness the Nizam's Guaranteed State Railways Company.  
 (e) Worked by the Madras Railway Company.  
 (f) Including 2.83 miles laid on a mixed gauge and 0.31 miles on the 3' 3 1/2" gauge.  
 (g) Including 5.63 miles of military line not used for public traffic.  
 (h) Including 26.28 miles of mixed (5' 6" and 3' 3 1/2") gauges between Kot Kapara and Bhatinda, worked over by the North Western State and Rajputana-Malwa railways.  
 (i) Worked by the East Indian Railway Company.  
 (j) Worked by the North Western State railway.  
 (k) Worked by the Oudh and Rohilkhand State railway.  
 (l) Although for convenience classed amongst State railways, this line is the property of the Bengal and North-Western Railway Company.  
 (m) Including 2.10 miles at Ujjain and 3.07 miles between Jumna East Bank and Agra Cantonment laid on the 5' 6" gauge.  
 (n) Worked by the Southern Mahratta Railway Company.

(o) Worked by the South Indian Railway Company.  
 (p) Worked by the Jodhpur-Bikaner railway.  
 (q) Excluding 3.68 miles of the Lucknow-Bareilly railway between Daliganj and Aishbagh but including the length, Bara Banki to Burhwal, 16.79 miles, and the length over Cawnpore bridge, 0.59 miles, laid on a mixed gauge.  
 (r) Worked by the Eastern Bengal State railway.  
 (s) Worked by the Assam Railways and Trading Company.  
 (t) Worked by the Bengal and North Western Railway Company.  
 (u) Including 4.38 miles\* of Bhavnagar Dock estates and Junagad quarry lines.  
 (v) Worked by the Bhavnagar-Gondal-Junagad-Forbandar railway.  
 (w) Including 3.83 miles\* of Bedi Bandar Dock estate siding.  
 (x) Worked by the Rohilkhand and Kumaon Railway Company.  
 (y) Worked by the Bengal-Nagpur Railway Company.  
 (z) Including 39.23 miles between Virangam and Wadhwan converted from the 5' 6" gauge to the 3' 3 1/2" gauge on the 14th December 1902.  
 (aa) Including the metre gauge connection 1.31 miles between the Oudh and Rohilkhand Cantonment and the Bengal and North-Western railway city stations at Benares.  
 (ab) Negotiations are in progress for the purchase of this line by the State.

* Correction of mileage.	
† Made up as follows:—	
Open at the commencement of 1903 1904	26,307.73
Add—Opened during 1903-1904	637.91
	27,145.63
Deduct—Not decrease due to corrections of mileage	21.7
	27,143.36

Appendix A.  
Important documents.

	Miles.	Miles.	Miles.
East Indian—			
Manpur to Hariharpur . . . . .	99.79		
Kasunda to Chandore . . . . .	4.18		
Shikohabad to Farukhabad . . . . .	65.82	352.26	
Ondal to Sainthia . . . . .	43.62		
Khurja to Hapur . . . . .	38.87		
Bengal-Nagpur—			
Bhojudih to Parthadhi . . . . .	1.45		
Bhojudih to Hariharpur . . . . .	27.90	40.76	
Malkera to Mohuda . . . . .	5.91		
Jamadhoba to Balliary . . . . .	5.50		
Madras (North-East line)—			
Korukkupetlai to Basia Road . . . . .	0.03		
Salem-Attur (a) . . . . .	96.06		
Acra-Deihi Chord . . . . .	121.16		
Azhikal-Managalore Extension . . . . .	77.27		
Great Indian Peninsula (Wardha Coal Branch)—			
Warora to Bellarpur (a) . . . . .	37.90		
North Western—			
Sargoda to Shorkot Road . . . . .	103.00		
From a point 12 miles South of Quetta to . . . . .	82.50	246.50	
Nuzki . . . . .	61.00		
Hyderabad (Sind) to Badin . . . . .	7.63		
Oudh and Mohilkhand—			
Allahabad to Phaphaman . . . . .	57.50	94.63	
Phaphaman to Zafarabad . . . . .	19.50		
Meerut to Hapur . . . . .			
Eastern Bengal—			
Panchooria to the Ganges (3) . . . . .	0.00		
Banaghat to Murshidabad . . . . .	75.00		
Murshidabad to Jeaganj . . . . .	6.00	105.75	
Jeaganj to Lalgaia . . . . .	16.50		
Kantargachi Chord . . . . .	2.25		
Southern Punjab—			
Ludhiana to MacLeod Ganj . . . . .			162.90
Bengal and North-Western—			
Tirhoot section—			
Sakri to Jalnagar . . . . .	36.47		
Mansi to Bapthi . . . . .	60.01		
Bettiah to Bagaha . . . . .	49.35		
Sihura to Murliganj . . . . .	18.61		
Bairagnia to Bikna Thori . . . . .	79.55	365.03	
Company's section—			
Uska Bazar to Tulsipur . . . . .	53.54		
Gaisanri to Jarwa . . . . .	13.56		
Gorakhpur to Bagaha . . . . .	60.94		
Rajputana-Malwa—			
Bowari to Phulera . . . . .		133.83	716.78
Famine lines (Madras Presidency)—			
Bellary to Rayadrug . . . . .	33.00	71.10	
Hospet to Kottur . . . . .	38.10		
South Indian—			
Tirupachettu to Sivagunga . . . . .		9.00	
Tanjore District Board—			
Adirampatnam and Thambikkottai Salt sidings and Arantangi Quarry branch . . . . .		5.53	
Nilgiri—			
Coonoor to Ootacamund . . . . .		11.50	
Burma—			
Pegu to Martaban (a) . . . . .		121.27	
Eastern Bengal—			
Golokganj to the Brahmaputra opposite Gauhati . . . . .	151.62		195.87
Kaunia to Bonarpura . . . . .	44.25		
Rohilkhand and Kumaon (Company's sections)—			
Bareilly to Soron . . . . .	58.00		
Moradabad to Ramnagar . . . . .	47.00	148.00	
Lalka to Kashipur . . . . .	45.00		
Tinnevely-Quilon (Travancore) (Native State section)—			
Ponalar to the Frontier of the Travancore State near Shencottah . . . . .		29.95	
Jaipur—			
Sanganer to Siwai-Madhapur (c) . . . . .			72.85
Bengal-Nagpur (Jubbulpore-Gondia extension) (2' 6")—			
Jubbulpore to Neipur . . . . .	69.93		
Neipur to Mandla . . . . .	21.75	131.04	
Seoni to Chindwara . . . . .	40.36		
Famine lines (Madras Presidency)—			
Morappur to Dharmapuri (2' 6") . . . . .	18.36	43.79	174.83
Tirupattur to Krishnagiri (3' 6") . . . . .	25.43		
North Western—			
Jullundur to the British Frontier (d) . . . . .			6.80
Barsi (2' 0")—			
Barsi Town to Pandharpur . . . . .	30.67	57.37	
Barsi Town to Tadwala . . . . .	26.70		
Howrah-Amba (2' 0")—			
Jagatbullaipur to Antpur . . . . .	8.50		
Antpur to Champadaga (a) . . . . .	9.00	21.00	
Antpur to Rajbuihat (a) . . . . .	8.50		
Dwara-Therria (2' 6")—			
Therria Ghat to Maolong (a) . . . . .	6.00		
Maolong to Noorpore or Dwara . . . . .	13.50	19.50	
Madras District Board (2' 6")—			
Amnayanayakanur to Kotagudi . . . . .	55.00		
Periyakulam to Krishna Manak's Tope . . . . .	5.00	93.00	
Theni to Karuvanath . . . . .	33.00		
Shahdara to Saharanpur (2' 6")—			
Shahdara to Saharanpur . . . . .	95.00	125.00	
Baraut to Meerut . . . . .	30.00		
Baraset-Basirhat (2' 6")—			
Baraset to Basirhat . . . . .		26.00	
Tarakeshwar Magra (2' 6")—			
Magra to Tribeni . . . . .		2.15	
Moharbanj (2' 6")—			
Baripada to Baripada Road . . . . .		28.50	
Gwalior (2' 0")—			
Gwalior to Sabulgarh . . . . .	57.86	155.36	
Subulgarh to Sheopor . . . . .	69.00		
Jullundur-Kaparthalla-Sultanpur (Native State section)—			
Sultanpur to the British Frontier (d) . . . . .			22.02
Catch (2' 6")—			
Anjar to Tana . . . . .			11.85

And the mileage under construction sanctioned for construction on the 31st Mar 1904 will be 3,044.42 miles, made up as follows:

	Miles.	Miles.
5' 6" gauge—		
(i) State lines worked by companies . . . . .	566.34	
(ii) State lines worked by the state . . . . .	436.87	
(iii) Assisted companies . . . . .	162.90	
3' 3 1/2" gauge—		1,166.11
(iv) State lines worked by companies . . . . .	716.75	
(v) State lines worked by the state . . . . .	195.87	
(vi) Assisted companies . . . . .	148.00	
(vii) Lines owned by native states and worked by companies . . . . .	629.95	
(viii) Lines owned and worked by native states . . . . .	72.85	1,163.43
Special (2' 6" and 2' 0") gauges—		
(ix) State lines worked by companies . . . . .	174.83	
(x) State lines worked by the state . . . . .	6.80	
(xi) Assisted companies . . . . .	344.02	
(xii) Lines owned by native states and worked by companies . . . . .	155.36	
(xiii) Lines owned by native states and worked by state railway agency . . . . .	22.02	
(xiv) Lines owned and worked by native states . . . . .	11.86	714.89
TOTAL . . . . .	3,044.42	

Making a grand total of railways completed and in hand, at the commencement of 1904-1905 of miles . . . . . \*30,187.78

And showing, after allowing for lines abandoned and corrections of mileage, an advance on the previous year of miles . . . . . 1,220.36

(a) Commencement of work not yet authorized.

(b) Constructed but not worked.

(c) Completion deferred.

(d) Question of gauge not yet finally settled.

Made up as follows:—

Completed and in hand at the beginning of 1903-1904 . . . . . 28,957.42

Sanctioned during 1903-1904 . . . . . 1,221.77

Miles.

28,957.42

1,221.77

30,239.19

Deduct—

Abandoned—

Bawal-Sutna . . . . . 31.81

South Indian, Marins loop—

Saidapet to Madras . . . . . 8.38

Net decrease due to corrections of mileage . . . . . 40.19

11.22

51.41

30,187.78

Appendix A—concluded.

Appendix A.  
Important documents.

It is expected that the following lengths of unfinished line will be opened for public traffic in 1904-05:—

	Miles.	Miles.
<b>5' 6" gauge—</b>		
(i) State lines worked by companies	162.85	
(ii) State lines worked by the State	151.12	
		318.97
<b>3 3/4" gauge—</b>		
(iii) State lines worked by the State	69.25	
(iv) Lines owned by native states and worked by companies	29.95	
		99.20
<b>Special (2' 6") gauge—</b>		
(v) State lines worked by companies	153.03	
(vi) Assisted companies	41.65	
		194.73
<b>TOTAL</b>		<b>607.90</b>

Leaving the undermentioned lines for completion in 1905-1906 or later:—

	Miles.	Miles.
<b>5' 6" gauge—</b>		
(vii) State lines worked by companies	403.49	
(viii) State lines worked by the State	283.75	
(ix) Assisted companies	162.90	
		852.14
<b>3' 3 3/4" gauge—</b>		
(x) State lines worked by companies	716.75	
(xi) State lines worked by the State	126.62	
(xii) Assisted companies	148.00	
(xiii) Lines owned and worked by native states	72.85	
		1,064.22
<b>Special (2' 6" and 2' 0") gauges—</b>		
(xiv) State lines worked by companies	21.75	
(xv) State lines worked by the State	6.80	
(xvi) Assisted companies	302.37	
(xvii) Lines owned by native states and worked by companies	155.36	
(xviii) Lines owned and worked by native states	11.86	
(xix) Lines owned by native states and worked by State railway agency	22.02	
		520.16
<b>TOTAL</b>		<b>2,433.52</b>

	Miles.	Miles.	Miles.
<b>Bengal-Nagpur—</b>			
(i) Bhojudih to Parthadihi	1.45		
Bhojudih to Haribarpur	37.90		
Malkera to Mohuda	5.91	40.78	
Jamadhoba to Balliary	5.80		
Agra-Delhi Chord		131.16	163.85
Madras (North-East line)—			
Korukkupettai to Basin Road		0.93	
<b>North Western—</b>			
Hyderabad (Sind) to Badia	61.00		
Jech Doab, Southern section—		118.00	
Sargoda to mile 46 near Chund	67.00		
<b>(ii) Oudh and Rohilkhand—</b>			
Allahabad to Phaphaman	7.63		
Meerut to Hapur	19.50	27.12	151.13
<b>Eastern Bengal—</b>			
Panchootta to the Ganges	(a) 6.00		
<b>(iii) Eastern Bengal—</b>			
Golokganj to Sankosh	25.00		
Kanais to Bonarpara	44.25		69.25
<b>(iv) Tinnevely, Quilon (Travancore) (Native State section)—</b>			
Ponatur to the Frontier of the Travancore State near Shencottah	29.95		
<b>Bengal-Nagpur (Jubbulpore-Gondia extension) (2' 6")—</b>			
Jubbulpore to Neipur	68.83	109.29	
Seoni to Chindwara	40.38		
<b>(v) Famine lines (Madras Presidency)—</b>			
Morappur to Dharmapuri (2' 6")	13.36		
Tirupattur to Krishnagiri (2' 6")	25.43	43.79	153.08
<b>Dwara Therria (2' 6")—</b>			
Dwara or Noorpur to Maolong	13.50		
<b>(vi) Baraset-Basirhat (2' 6")—</b>			
Baraset to Basirhat	28.00		41.65
Tarakeshwar-Magra (2' 6")—			
Magra to Tribeni	3.15		
<b>East Indian—</b>			
Shikhabad to Furukhabad	65.63		
Kasunda to Chandore	4.16		
Manpur to Haribarpur	99.79	252.26	
Ondal to Salathia	43.02		
Khurja to Hapur	38.87		
<b>(vii) Great Indian Peninsula—</b>			
Wardha Coal Branch—			
Warora to Bellarpur (b)		37.90	403.49
<b>Salem-Attur—</b>			
Salem to Attur (b)		38.08	
Ashikal-Mangalore extension		77.27	
<b>North Western—</b>			
From mile 46 near Chund to Shorkot Road	46.00		
From a point 12 miles south of Quetta to Nushki	82.50	128.50	
<b>(viii) Oudh and Rohilkhand—</b>			
Phaphaman to Zafarabad		67.50	285.75
<b>Eastern Bengal—</b>			
Kankurguchi Chord	2.25		
Banaghat to Jessanj	61.00		
Jessanj to Laigola	16.50	99.75	
<b>(ix) Southern Punjab—</b>			
Ludhiana to MacLeod Ganj			162.1
<b>Bengal and North-Western—</b>			
<b>Tichoot section—</b>			
Bakri to Jainagar	30.47		
Mausi to Baphtiahi	60.01		
Bettiah to Bagaha	40.35		
Sihursa to Murliganj	16.61		
Bairagnia to Bikna Thori	79.55	365.03	
<b>Company's section—</b>			
Uska Bazar to Tulsipur	53.54		
Galsauri to Jarwa	12.56		
Gorakhpur to Bagaha	60.04		
<b>(x) Rajputana-Malwa—</b>			
Rewari to Phulera		133.32	
<b>Famine lines (Madras Presidency)—</b>			
Bellary to Rayadrag	33.00		
Hospet to Kottar	38.10	71.10	
<b>South India—</b>			
Tirupachettu to Sivaganga		9.00	716
<b>Tanjore District Board—</b>			
Adirampattam and Thembikkottar Salt sidings and Arantangi Quarry branch		5.63	
<b>Burma—</b>			
Pegu to Martaban (b)		121.27	
<b>Nilgiri—</b>			
Coonoor to Ootacamund		11.50	
<b>(xi) Eastern Bengal—</b>			
Sankosh to the Brahmaputra opposite Gauhati			11
<b>(xii) Rohilkhand and Kumaon (Company's section)—</b>			
Bareilly to Soron	58.00		
Moradabad to Ramnagar	47.00		
Lalkua to Kashipur	45.00		
<b>(xiii) Jaipur—</b>			
Banganer to Siwal-Mudhopur (d)			
<b>(xiv) Bengal-Nagpur (Jubbulpore-Gondia extension) (2' 6")—</b>			
Neipur to Mandla			
<b>(xv) North Western—</b>			
Jullundur to the British Frontier (e)			
<b>Barsi (2' 6")—</b>			
Barsi Town to Tadwala	20.70		
Barsi Town to Pandharpur	39.67	67.37	
<b>Dwara-Therria (2' 6")—</b>			
Maolong to Therria Ghat		6.00	
<b>Howrah-Arnta (2' 0")—</b>			
Jagatbullaipur to Antpur	8.50		
Antpur to Champadanga (b)	9.00		
Antpur to Rajbalhat (b)	3.50	21.00	
<b>(xvi) Madras District Board (2' 6")—</b>			
Ammayanayakkanur to Kota-gudi		53.00	
Periyakulam to Krishna Manal's Tope		5.00	
Theni to Karuvannath		33.00	
Shahdara-Faharanpur (2' 6")—			
Shahdara to Saharanpur	95.00		
Baraut to Meerut	30.00	125.00	
<b>Moharbhag (2' 6")—</b>			
Baripada to Baripada Road		29.50	
<b>(xvii) Gwalior (2' 0")—</b>			
Gwalior to Sheopur		120.85	
<b>(xviii) Cutch (2' 6")—</b>			
Anjar to Tuna			
<b>(xix) Jullundur-Kapurthalla-Sultanpur (Native State section)—</b>			
Sultanpur to the British Frontier (e)			

(a) Construction completed.  
(b) Commencement of work not yet authorised.  
(c) Question of gauge not yet finally settled.  
(d) Completion deferred.



Appendix B.  
Important  
documents.

## APPENDIX B.

No. 1161 R. C.

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY CONSTRUCTION.

FROM

MR. A. BRERETON, SECRETARY, RAILWAYS,

TO

THE SECRETARIES TO THE GOVERNMENTS OF MADRAS AND BOMBAY, PUBLIC WORKS DEPARTMENT, RAILWAY BRANCH.

THE SECRETARY TO THE GOVERNMENT OF BENGAL, PUBLIC WORKS DEPARTMENT.

THE SECRETARY TO THE GOVERNMENT OF BURMA, PUBLIC WORKS DEPARTMENT, RAILWAY BRANCH.

THE HONOURABLE THE CHIEF COMMISSIONER OF ASSAM.

THE HONOURABLE THE RESIDENT AT HYDERABAD.

THE HONOURABLE THE RESIDENT IN MYSORE.

THE HONOURABLE THE AGENTS TO THE GOVERNOR GENERAL FOR CENTRAL INDIA AND RAJPUTANA.

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

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

Simla, the 28th July 1903.

SIR,

I am directed to inform you that the Government of India have had under consideration the advisability of arranging that all girders of large bridges on metre gauge railways should be designed to carry 5' 6" gauge loads.

2. It is found that the general dimensions of large girders for the two gauges and of the masonry which carries them are nearly identical, and that the additional cost of providing the heavier girder would rarely be excessive, and in all cases would bear but a small proportion to the cost of the whole bridge. The principle underlying the proposal has already been recognised in the case of the standard dimensions prescribed for tunnels and for the spacing of tracks and fixed structures in station yards; and the advantages of ensuring that a conceivably desirable development may not be checked by the fact that existing girders will not admit of it except at a prohibitive cost, are obvious.

3. I am to state, therefore, that after careful consideration the Government of India are of opinion that the proposal should be adopted, and accordingly direct that in future all girders of 100' span and over on metre gauge lines should be designed to carry standard gauge loads and to be suitable for easy conversion to that gauge unless special sanction to the contrary is obtained from the Government of India.

I have the honour to be,

SIR,

Your most obedient servant,

F. D. COUCHMAN,

Under-Secretary.

*Documents accompanying.*

NIL

## APPENDIX C.

Appendix C.  
Important documents.

Construction of feeder lines by Local District Boards from taxes expressly levied for the purpose, and the financing of such lines.

No. 21 R. P.

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY PROJECTS.

To

- THE SECRETARIES TO THE GOVERNMENTS OF BOMBAY AND BURMA, PUBLIC WORKS DEPARTMENT, RAILWAY BRANCH.  
THE SECRETARIES TO THE GOVERNMENTS OF BENGAL, THE NORTH-WESTERN PROVINCES AND OUDH AND THE PUNJAB, PUBLIC WORKS DEPARTMENT.  
THE HONOURABLE THE CHIEF COMMISSIONERS OF THE CENTRAL PROVINCES AND ASSAM.  
THE HONOURABLE THE RESIDENT AT HYDERABAD.  
THE HONOURABLE THE RESIDENT IN MYSORE.  
THE HONOURABLE THE AGENT TO THE GOVERNOR GENERAL AND CHIEF COMMISSIONER OF THE NORTH-WEST FRONTIER PROVINCE.  
THE HONOURABLE THE AGENTS TO THE GOVERNOR GENERAL FOR RAJPUTANA, CENTRAL INDIA AND BALUCHISTAN.  
THE CONSULTING ENGINEERS TO THE GOVERNMENT OF INDIA FOR RAILWAYS, CALCUTTA, LUCKNOW AND ASSAM.  
THE MANAGERS, NORTH WESTERN, OUDH AND ROHILKHAND, AND EASTERN BENGAL (STATE) RAILWAYS.

Calcutta, the 5th February 1902.

SIR,

I am directed to forward, for information, a copy of a note on the subject of the provision of branch or feeder lines in India by "Private enterprise" outside the Government of India programme of railway construction, and to state that the Government of India will be glad to consider any suggestions on the subject, and to receive proposals which will permit of the construction of such lines of railway on the basis of the general conditions outlined in the note.

I have the honour to be,

SIR,

Your most obedient Servant,

NEVILLE PRIESTLEY,

Offg. Under Secretary.

Document accompanying.

Note referred to.

Enclosure to Government of India letter No. 21 R. P., dated 5th February 1902.

## NOTE ON THE FINANCING OF BRANCH LINES OF RAILWAY.

There have recently been many proposals before the Government of India for the construction of branch lines of railway by what is known as "Private enterprise." In most of the schemes submitted one of the conditions usually demanded by the Promoters is that a certain minimum rate of interest shall be guaranteed to the shareholders. A guarantee of interest, whether directly by Government or indirectly by one of the working railway agencies, brings the scheme within what is known as the "Railway Programme," and thus it has to take its chance in the struggle for a share of the programme allotment with all other schemes requiring a Government guarantee.



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2. As can be readily conceived, the demands on the "Railway Programme" are always greatly in excess of the amount, however large, which is therein allotted for railway expenditure. From the sum available, funds for the necessary improvement of existing railways must in the first place be provided, and with the steady development which is taking place in them, the amount thus required is considerable. Next, money has to be provided for continuing work on railways already under construction. The residue is available for new lines.

3. In the year 1901-1902, the total amount allotted to the "Railway Programme" was Rs. 10,32,44,000, which was distributed as follows:—

			Rs.
For expenditure on existing railways	...	...	4,59,97,000
" " " lines under construction	...	...	4,59,47,000
" " " new lines	...	...	1,13,00,000
		TOTAL	10,32,44,000

It will be seen that with the large number of railways of Imperial importance still remaining to be constructed, there is little room for the provision of funds for small branch lines out of a total allotment of only 113 lakhs of rupees for new lines. So long, therefore, as Promoters demand a guarantee (and there seems to be a strong disinclination on the part of the investing public to place their money in unguaranteed Indian railway schemes), and while the demands for lines of Imperial importance continue, there are small prospects of lines of only local importance finding a place in the "Railway Programme."

4. The importance of these branches, both to the country and to the railways with which they will connect, is nevertheless fully recognised, and much consideration has been given to the problem of how they may be provided outside the programme.

5. The point to which most consideration appears to have been given in all schemes for branch lines has been whether the branch would justify its construction by what it would earn *for itself*, and attention appears to have been only incidentally directed to the benefits which the main line would derive from its construction. Recognising how great the importance was of these branch lines to the main line, the Government of India in their Resolution No. 514 B. C., dated 17th April 1896, authorised the main line paying a rebate to the branch line of the full amount of the net earnings derived by the former from traffic interchanged with the latter, so as to help the branch to make up with its own earnings a dividend of  $3\frac{1}{2}$  per cent. on its capital. But the effects of this concession would to some extent be neutralised if the charges made by main lines for working the branches were pitched too high. It is only necessary to examine the accounts of any branch line which has been constructed to see that not only has the main line not suffered either at its junction or on the main line, but that the traffic brought to it by the construction of the branch would have justified its undertaking to work the branch for nothing rather than not have had it constructed. The addition of a short branch to the main line adds bare out-of-pocket expenses only to the working charges of the latter, and it would materially assist the construction of these branches, if the main lines not only allowed rebates on interchanged traffic, but gave liberal concessions, in the matter of working expenses.

6. But however liberal the terms offered may be, there still remains the difficulty of financing these branches without a guarantee. It is not necessary here to consider why there should be so much hesitation in investing money in railway projects. The fact remains that unguaranteed schemes are in little favour and that it is almost impossible to raise the money for an Indian line of railway without a Government guarantee. It has already been shewn that this guarantee cannot always be given by the Imperial Government, because their hands are full of projects of Imperial importance, but there is no reason why a sufficiently good guarantee should not be given by the Local authorities through whose areas the line will run.

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7. In their Resolution\* No. 3210 A., dated the 22nd July 1898, the Government of India in the Finance and Commerce Department explained to what extent the powers of taxation conferred upon Local Boards could be used for the furtherance of railway schemes. Where a margin exists between the amount actually raised for necessary expenditure and the amount which Local Boards have power to levy, the Local Boards can have no financial difficulty in guaranteeing railway lines to the extent of the margin. But where a Local Board is already spending to the full extent of its taxing powers and the margin is insufficient to guarantee interest on the capital of the railway required, the case is different.

8. To overcome the difficulty in the latter case, the Madras Government, with the concurrence of the Government of India, have recently by legislation authorised Local Boards to levy over and above the ordinary cess a special cess of three pies in the rupee on the assessment or the annual rent value of all occupied lands, on the understanding that the money thus raised will be utilised solely for the construction of tramways or railways. It would probably be to the advantage of other Local Governments to obtain sanction to enable similar taxation to be imposed, when necessary and advisable, in other parts of India where development is hindered through want of proper communications and of transport facilities.

9. There are few districts in India which would not be the better for more railway communications than they now possess, and in many of them schemes for a connection between important towns and the main line of railway have been languishing for years. In regard to all such projects the first question for the Local authority to determine is whether the margin of taxation remaining, or whether such margin, together with the special cess referred to in paragraph 8, will be sufficient to cover the full guarantee on the capital necessary to construct the railway. If it is sufficient, the next questions for consideration are: (a) what kind of railway shall be made; (b) by what agency shall the capital be raised; (c) by what agency shall the railway be made; and (d) by what agency and on what terms shall the railway be worked when made.

10. Question (b), namely, by what agency shall the capital be raised, that is, whether it shall be raised by a loan, or whether the interest only on the capital shall be guaranteed to a company promoted by some firm of recognised standing or by the railway company working the main line, is a matter which must be influenced by the financial credit of the Local Board at the time. If either of the latter agencies is employed, it will generally be possible, in return for the guarantee, to specify that surplus profits over an agreed percentage shall be divided between the Company and the Local authority not only until arrears of guarantee have been made good, but during the whole currency of the contract, and in this manner the Local authority will be able to obtain an asset which will be available for the guaranteeing of other railways. In regard to the former method, it may be mentioned that in Madras an attempt recently made by District Board to raise a loan for a railway project did not meet with success, while in Bengal there has been no difficulty in finding firms of repute to raise the necessary capital on the guarantee of the District Board. Whichever method it may ultimately be decided to recommend the adoption of in the case of any particular scheme, it will need to be carefully scrutinised, as the failure of such projects after sanction has been given to them is very undesirable, not only because of the financial responsibility resulting to Government, but also because each failure is a serious impediment to new investors whom it is the policy of Government to encourage.

11. In regard to (c), namely, by what agency shall the railway be made, it will generally be found most satisfactory to employ the agency to make the line which will subsequently have to work it.

12. In regard to (d), namely, by what agency and on what terms shall the railway be worked when made, there can be little question, especially in the case of short branches, that the most satisfactory and economical results will

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generally be obtained by having the branch worked by the main line agency. This is specially the case when the main line is allowing a rebate on interchanged traffic. The cost of working should as a rule be represented only by the main line's actual out-of-pocket expenses, and should be subject to a fixed maximum percentage of the gross earnings.

13. In regard to (a), namely, what kind of railway shall be made, the decision will depend largely on what kind of railway the traffic of the district to be served needs and the finances of the district can afford. If the branch line is to connect with a large town which is already connected with the railway by a good road, and there already exist reasonably satisfactory transport facilities, a better class of railway may be necessary to compete successfully with existing transport.

14. The proposals submitted in connection with branch lines occasionally provide for a railway of a standard which is quite out of keeping with the necessities of the district, and it is the construction of such railways equipped with all the most modern conveniences which makes the liability on account of interest excessive, and which causes the rejection of many schemes that could well have been adopted if they had only been projected on less ambitious lines.

15. If a less ambitious policy were generally adopted, it would, it is hoped, lead to the provision of many branch lines which otherwise will have to be indefinitely postponed. The provision of these railways must have the effect, possibly, of improving the revenues of the Local authorities, and certainly of saving expenditure on the upkeep of roads; and, if only the routes be carefully selected, the lines should not only prove no burden to the Local authorities but should soon be a source of income to them.

16. In the preceding paragraphs nothing has been said as to how Local authorities should proceed to get their projects taken up. If their desire to find promoters be made known, firms of standing may be expected to come forward with offers to raise a company. But it might generally be to the advantage of the Local Board to negotiate with the agency working the main line, who would have less difficulty in forming a company and in raising the necessary capital than firms not already engaged in railway promotion. In the case of branch lines connecting with State worked railways, there are generally some promoters who have already undertaken railway schemes and would no doubt be willing to undertake others. Lines thus projected would come outside the "Railway Programme," and the only limit on their construction would be the financial condition of the market and the amount of money in the hands of the public that is available for investment.

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*Annexure No. 1.*

RESOLUTION, No. 3210 A., dated 22nd July 1898.—By the Government of India, Finance and Commerce Department.

Read again—

Resolution in this Department, No. 4445 A., dated the 7th October 1897 :—  
 "The Government of India have noticed that in some cases District Boards, acting under the provisions of Acts by which they have been constituted, have guaranteed the payment, out of their revenues, of interest on capital raised for the construction of railways or other public works within the districts. Under the existing relations between Imperial and Provincial finances on the one hand and between Provincial and Local finances on the other, the ordinary effect of such a guarantee is that the whole liability for its fulfilment has ultimately to be borne by Imperial Revenues. An exception to this arises in cases where there is a margin between the actual rate of cess levied by the Board concerned and the maximum rate leviable under the law. This margin can then be utilised for the levy of a special cess, the proceeds of which would either by means of a separate guarantee fund or otherwise be available for meeting any demand on account of the guaranteed interest. But where a District Board already levies cess up to the maximum legal amount, the liability

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on account of the Board's guarantee must, in effect, be passed on to Provincial funds, either directly or by the transfer to Provincial of charges hitherto met from Local Funds; and in the same way the responsibility for a guarantee from Provincial Revenues must ultimately be passed on to Imperial Revenues, since under present conditions Provincial Revenues cannot meet the guarantee, except for a short time, otherwise than by obtaining an assignment from the general revenues on account of it.

" 2. In the circumstances above explained, it appears to the Governor General in Council that such guarantees should not be given in cases which do not come within the exception above referred to, except by the special consent of the Government of India, and at a rate of interest to be approved by them. The considerations governing the granting or withholding of consent and the rate of interest to be paid would in each case be those by which the desirability of a direct guarantee from general revenues and the rate of interest to be guaranteed would ordinarily be determined.

" 3. The Government of India would be glad to be favoured with the observations of the Local Governments on these proposals."

Read also—

Letter from the Government of the North-Western Provinces and Oudh, No.  $\frac{1078}{IX-92}$ , dated the 22nd October 1897.

Letter from the Government of Burma, No. 647-8-P.—5, dated the 29th October 1897.

Letter from the Chief Commissioner, Central Provinces, No. 8513, dated the 6th November 1897.

Letter from the Government of the Punjab, No. 2356, dated the 13th November 1897.

Letter from the Chief Commissioner, Assam, No.  $\frac{271L.S.G.}{8510 G.}$ , dated the 13th November 1897.

Letter from the Government of Madras, No. 2407-L-Miscellaneous, dated the 9th December 1897.

Letter from the Government of Bengal, No. 2285 L. S. G., dated the 7th April 1898.

Letter from the Government of Bombay, No. 2045, dated the 9th May 1898.

RESOLUTION.—The orders proposed in the Resolution of 7th October last, reproduced above, are generally accepted by the Local Governments, and are therefore confirmed by the Governor General in Council.

ORDER.—Ordered that a copy of the Resolution be forwarded to the Governments of Madras, Bombay, Bengal, North-Western Provinces and Oudh, the Punjab and Burma, and the Chief Commissioners, Central Provinces and Assam, and to the Public Works and Home Departments, for information.

## Annexure No. 2.

No. 12 R. P., dated 28th January 1903.

From—The Government of India, Public Works Department,

To—The Secretary to the Government of Madras, Public Works Department, Railway Branch.

I am directed to acknowledge the receipt of your letter No. 1862 Railway, dated 13th November 1902, with which you forwarded a statement showing the action taken by District Boards in the Madras Presidency for the levy of a special cess under section 57, clause (ii) of the Madras Local Boards Act, 1884, to be utilized solely in the construction of railways. I am to say that the Government of India consider the enterprise shown by the District Boards in this matter to be very commendable and to be deserving of encouragement from the Government.

2. Since many years must elapse before the proceeds of the cess will, in the majority of the cases, amount to a sufficient sum to enable the Board to commence the work of railway construction, the Government of India think

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that capital may suitably be borrowed for this purpose on the security of the special cess. The experience of the Tanjore District Board shows that at present very little reliance can be placed on the investing public for the supply of the necessary capital, but I am to suggest, for the consideration of His Excellency the Governor in Council, that a moderate amount of money might be advanced for this purpose from the Provincial Loan Account. In that case the security for repayment would consist not only of the proceeds of the special cess, but of the entire resources of the District Board. This security would be sufficient in most cases to justify a loan from Government, and the chief difficulty would arise in the finding of funds.

3. The Government of India are prepared to show their appreciation of the public spirit of the local tax-payers by supplying funds as far as possible for loans for railway construction, and to this end they will, if these suggestions prove acceptable to the Government of Madras, consider any proposals that may be submitted by that Government for an increase in the sum annually allotted for the Provincial Loan Account. It will be necessary in each case of such application that the scheme for the proposed railway shall have been regularly sanctioned by competent authority, and no large or definite sum can be promised for this purpose as the amount that may be available in any year will depend on the particular circumstances of the year; but the Boards might find it possible to supplement the capital that can be furnished by the Government of loans floated in the open market, and thus to expedite the work of construction and secure to the inhabitants of the district the earlier benefit of the special cess.

4. Any loans that may be made by the Government of Madras in pursuance of these suggestions would be granted under the Local Authorities Loans Act, 1879 (XI of 1879), and would be subject to the rules made under section 5 of that Act. They would not in ordinary cases have a currency of more than 30 years and should, preferably, be repayable in a series of half yearly "equalised" instalments dating from the end of the half-year in which the railway for which the loan is required shall have been opened for traffic. The Government of India would expect the Government of Madras to satisfy itself, before granting any such loan, that the District Board concerned will in all reasonable probability be in a position to repay it in regular instalments. The interest to be charged in all cases would be 4 per cent.

5. I am to inquire whether these suggestions commend themselves to His Excellency the Governor in Council, and, if so, to say that the Government of India will be prepared to receive definite proposals for expanding the Madras Provincial Loan Account.