Public Works (1890) Department.

RAILWAY BRANCH.

G.O., No. 405 Ry.

DATED 21st March

[Despatch Abstract.]

Return of accidents on Indian Railways for the second quarter of 1889. — Resolution of the Govt of India on the —, Communicated to the Consulting Engineer for Railways.

Indexed.

[P. W. Ry. 760—25-8-99.]

BACK PAPERS.

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

FURTHER PAPERS.

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

[Enclosure to P. W. D. No. 0210 R.T. of 1890.]

INDIAN RAILWAYS.

ABSTRACT RETURNS OF ACCIDENTS FOR THE QUARTER ENDING 30TH JUNE 1889,

TOGETHER WITH

REPORTS OF THE INSPECTING OFFICERS UPON CERTAIN ACCIDENTS WHICH WERE INQUIRED INTO.

G. I. C. P. O.—No. 98 D. G. R.—18-2-90.—800.

TABLE No. 1.

GENERAL TOTAL.

NUMBER of PERSONS reported during the Second Quarter of 1889 as KILLED or INJURED on the several RAILWAYS open for Traffic in INDIA, distinguishing between PASSENGERS, RAILWAY SERVANTS, and OTHER PERSONS; and distinguishing also in the case of the two former classes between ACCIDENTS happening from Causes beyond their own Control, and ACCIDENTS happening otherwise.

Mean mileage open.	RAILWAYS.		PASSENGERS.						RAILWAY SERVANTS, OR SERVANTS OF CONTRACTORS.						OTHER PERSONS								TOTAL ALL CLASSES.	
			From causes beyond their own control.		From their own misconduct or want of caution.		Total.		From causes beyond their own control.		From their own misconduct or want of caution.		Total.		Whilst passing over Railways at Level-Crossings.		Trespassers and 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.
	STATE IMPERIAL.																							
(a)1,691½	East Indian ...	Average for 5 corresponding previous quarters.	...	3	3	7	3	10	2	7	7	26	9	3	1	1	17		1		19	3	3	46
(b)1,605		1889	...	...	...	5	...	5	3	16	2	35	5	51	1	1	28	6	1	3	30	10	35	66
(c) 1,628½	Rajputana-Malwa ...	Average for 5 corresponding previous quarters.	...	...	1	4	1	4	...	2	2	12	2	14	...	...	4	2	...	...	4	2	7	20
1,691½		1889	...	...	1	2	1	2	...	3	...	8	...	11	...	...	3	4	...	...	3	4	4	17
(d) 186	Bengal-Nágpur	Average for 5 corresponding previous quarters.	...	1	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	2
293		1889	...	1	...	...	...	1	...	...	...	1	...	1	...	...	1	...	...	...	1	...	1	2
(e) 410½	Southern Mahratta ...	Average for 4 corresponding previous quarters.	...	...	...	...	...	...	...	...	1	4	1	4	...	...	1	...	...	...	1	...	2	4
856½		1889	...	...	...	...	...	...	...	...	1	4	1	4	...	...	1	...	...	...	1	...	2	4
129	Ditto, Mysore Section ...	Average for 5 corresponding previous quarters.	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
218½		1889	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(f)136¼	Indian Midland	Corresponding previous quarter.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	1	1	1
611		1889	...	...	...	5	...	5	...	1	3	4	3	5	...	...	1	...	...	1	1	1	4	11
(g) 1,921½	North Western	Average for 5 corresponding previous quarters.	...	2	1	5	1	7	3	5	5	12	8	17	...	1	8	2	...	1	8	4	17	28
2,386		1889	...	...	4	10	4	10	...	...	9	8	9	8	...	...	12	3	1	1	13	4	26	22
(h) 626½	Oudh and Rohilkhand . .	Average for 5 corresponding previous quarters.	...	...	...	1	...	1	...	...	2	4	2	4	...	...	3	2	...	...	3	2	5	7
692½		1889	...	1	...	3	...	4	1	1	3	2	4	3	1	...	8	1	2	...	11	1	15	8
45	Wardha Coal	Average for 5 corresponding previous quarters.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
45		1889	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	STATE PROVINCIAL.																							
(i) 718	Eastern Bengal . . .	Average for 5 corresponding previous quarters.	1	2	...	2	1	4	...	1	3	8	3	9	...	...	5	2	...	...	5	2	9	1
798		1889	7	81	...	1	7	82	1	...	2	9	3	9	...	...	9	3	...	...	9	3	19	94
27¼	Nalháti . . .	Average for 5 corresponding previous quarters.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
27½		1889	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1
234¾	Tirhoot	Average for 5 corresponding previous quarters.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	1	1	1
273		1889	...	...	...	1	...	1	...	...	3	3	3	3	...	...	3	...	...	...	3	...	6	4
93½	Lucknow-Sitapur-Sihrámau ...	Average for 5 corresponding previous quarters.	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
105		1889	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28½	Jorhát	Average for 5 corresponding previous quarters.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30½		1889	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7½	Cherra-Companyganj . .	Average for 5 corresponding previous quarters.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7½		1889	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1
289¾	Burma	Average for 5 corresponding previous quarters.	...	...	...	1	...	1	...	2	1	3	1	5	...	...	1	1	...	...	1	1	2	7
(j) 553		1889	...	2	1	3	1	5	...	...	3	5	3	5	...	...	1	1	...	...	1	1	5	11
	GUARANTEED COMPANIES.																							
851¾	Madras	Average for 5 corresponding previous quarters.	...	...	...	1	...	1	...	1	1	7	1	8	...	...	2	...	...	...	2	...	3	9
839		1889	...	...	...	3	...	3	...	...	2	14	2	14	...	...	1	...	...	...	1	...	3	17
(k) 670½	South Indian . . .	Average for 5 corresponding previous quarters.	...	1	...	1	...	2	...	1	1	6	1	7	...	...	1	...	...	...	1	...	2	9
738		1889	...	...	...	3	...	3	...	...	...	13	...	13	...	...	...	1	...	...	...	1	...	17
(l)1,493¾	Great Indian Peninsula . .	Average for 5 corresponding previous quarters.	...	...	1	2	1	2	...	...	9	26	9	26	...	...	4	2	1	1	5	3	15	31
(m)1,445½		1889	2	5	...	7	2	12	1	...	7	33	8	33	...	...	4	1	...	...	4	1	14	46
(n) 461	Bombay, Baroda and Central India	Average for 5 corresponding previous quarters.	...	...	1	2	1	2	...	...	3	11	3	11	...	...	2	...	1	...	3	...	7	13
461		1889	...	...	2	...	2	...	...	...	2	4	2	4	...	...	2	1	...	...	2	1	6	5
	ASSISTED COMPANIES.																							
51	Darjeeling-Himalayan . .	Average for 5 corresponding previous quarters.	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1
51		1889	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5½	Deoghur	Average for 5 corresponding previous quarters.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4¾		1889	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
78	Dibru-Sadiya . . .	Average for 3 corresponding previous quarters.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
78		1889	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
286¼	Bengal and North-Western .	Average for 4 corresponding previous quarters.	...	...	...	...	...	...	...	...	...	2	...	2	...	...	3	...	...	...	3	...	3	2
376		1889	...	...	...	...	...	...	...	...	...	1	...	1	3	1	2	1	2	...	7	2	7	3

(a) Includes the Patna-Gya, Sindia, Dildárnagar-Ghazipur and Tárakeshwar Railways for five quarters; and the Indian Midland Railway for four quarters.
(b) Includes the Patna-Gya, Dildárnagar-Gházipur and Tárakeshwar Railways.
(c) Includes H. H. the Gaekwar's Viramgám-Mehsána-Vadnagar Railway.
(d) Includes the Katni-Umaria Branch.
(e) Includes the Bellary-Kistna State Railway.
(f) Includes the Sindia and Bhopal-Itársi State Railways.
(g) Includes the Amritsar-Pathánkot and Rájpura-Bhátinda State Railways.
(h) Includes the Benares Branch.
(i) Includes the Bengal Central Railway.
(j) Includes the Toungoo-Mandalay Extension.
(k) Includes the Villupuram-Dharmavaram, Nellore Branch.
(l) Includes the Dhond-Manmád, Amráoti, Khámgaon, and Bhopal-Itársi State Railways.
(m) Includes the Dhond-Manmád, Khámgaon, and Amráoti State Railways.
(n) Includes the Pátri Branch.

TABLE No. 1—*concluded.*

General Total.

Number of Persons reported during the Second Quarter of 1889 as Killed or Injured on the several Railways open for Traffic in India, &c.—*concluded.*

Mean mileage open.	Railways.	Passengers.						Railway Servants or Servants of Contractors.						Other Persons								Total all Classes.	
		From causes beyond their own control.		From their own misconduct or want of caution.		Total.		From causes beyond their own control.		From their own misconduct or want of caution.		Total.		Whilst passing over Railways at Level-Crossings.		Trespassers and 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.
	ASSISTED COMPANIES—*concld.*																						
91 (*a*)	Rohilkhand-Kumaun . . Average for 4 corresponding previous quarters.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
91	Rohilkhand-Kumaun . . 1889	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Thatôn-Duyinzáik . . Average for 5 corresponding previous quarters.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Thatôn-Duyinzáik . . 1889	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	FOREIGN.																						
	Pondicherry	...	...	...	...	...	...	...	Worked by the South Indian Railway.					...	...	...	...	...	...	...	...	...	...
	West of India Portuguese	...	...	...	...	...	...	...	...	Information not furnished.				...	...	...	...	...	...	...	...	...	...
	NATIVE STATES.																						
187	H. H. the Nizam's Guaranteed . Average for 5 corresponding previous quarters.	...	...	...	...	...	...	...	2	1	1	1	3	...	...	...	...	...	...	...	...	1	3
(*b*) 354	H. H. the Nizam's Guaranteed . 1889	...	...	...	1	...	1	...	...	...	4	...	4	...	...	1	...	...	...	1	...	1	5
59	H. H. the Gaekwar's . . Average for 5 corresponding previous quarters.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
59	H. H. the Gaekwar's . . 1889	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
193	Bhávnagar-Gondal-Junágarh-Porbandar. Average for 5 corresponding previous quarters.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
260	Bhávnagar-Gondal-Junágarh-Porbandar. 1889	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...
68	Morvi . . . . . Average for 3 corresponding previous quarters.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
68	Morvi 1889	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1
79¼	Jodhpore . . . . . Average for 5 corresponding previous quarters.	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1
124	Jodhpore 1889	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
12,766¼	Total . . . . . Average for 5 corresponding previous quarters(*c*).	1	10	7	26	8	36	5	22	36	124	41	146	1	2	53	12	3	5	57	19	106	201
15,151¼	Total 1889	9	90	9	44	18	134	6	22	38	150	44	172	5	2	77	22	6	5	88	29	159	335

(*a*) Includes the Bareilly-Pilibhit State Railway.

(*b*) Includes the Bezvada Extension.

(*c*) Except where statistics for five quarters are not available for any line.

TABLE No. 2.

TABLE No. 2.

NUMBER of PERSONS reported during the Second Quarter of 1889 as KILLED or INJURED on all RAILWAYS open for Traffic in INDIA, distinguishing between PASSENGERS, RAILWAY SERVANTS, and OTHER PERSONS, and classifying, as far as practicable, the Nature and Causes of the Accidents occasioning the Death or Injury.

PASSENGERS.

FROM CAUSES OTHER THAN ACCIDENTS TO TRAINS, &c.

Serial Number.	RAILWAYS.	From accidents to trains, &c. See Table No. 4.		1. From falling between carriages and platforms.		2. Falling on to the platform, ballast, &c., when getting into or out of trains.		3. Whilst crossing the line at stations.		4. By closing of carriage doors.		5. Falling out of carriages during the travelling of trains.		6. Other accidents.		Total.		Total Passengers.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
	STATE IMPERIAL.																		
1	East Indian (*a*)				1		2						2				5		5
2	Rajputana-Malwa (*b*)		1																
3	Bengal-Nágpur (*c*)													1	1	1	1	1	2
4	Southern Mahratta (*d*)												1				1		1
5	Ditto, Mysore Section																		
6	Indian Midland (*e*)				1														
7	North Western (*f*)						1	1	1			2	9			4	10	4	10
8	Oudh and Rohilkhand (*g*)		1				1						2				3		4
9	Wardha Coal																		
	STATE PROVINCIAL.																		
10	Eastern Bengal (*h*)	7	81																
11	Nalhátí												1				1		1
12	Tirhoot		1																
13	Lucknow-Sitapur-Sihrámau																		
14	Jorhát																		
15	Cherra-Companyganj																		
16	Burma (*i*)																		
	GUARANTEED COMPANIES.																		
17	Madras																		
18	South Indian (*j*)																		
19	Great Indian Peninsula (*k*) ...	2	4		1		1						1				1		1
20	Bombay, Baroda and Central India (*l*).												2				2		2
	ASSISTED COMPANIES.																		
21	Darjeeling-Himalayan																		
22	Deoghur																		
23	Dibru-Sadiya																		
24	Bengal and North-Western																		
25	Rohilkhand-Kumaun (*m*)																		
26	Thâton-Duyinzáik																		
	FOREIGN.																		
27	Pondicherry																		
28	West of India Portuguese																		
	NATIVE STATES.																		
29	H. H. the Nizam's Guaranteed (*n*) ...																		
30	H. H. the Gaekwar's																		
31	Bhávnagar-Gondal-Junágarh-Porbandar.																		
32	Morvi																		
33	Jodhpore																		
	TOTAL ... 1889...	9	88	...	3	1	5	2	...	...	1	5	30	1	7	9	46	18	134
	TOTAL ... Average for 5 corresponding previous quarters (*o*)...	1	8	2	1	1	2	...	...	...	1	3	18	1	6	7	28	8	36

PASSENGERS.

Serial Number.	RAILWAYS.	From accidents to trains, &c. See Table No. 4.		1. During shunting operations.		2. Falling off engines, vans, wagons, &c.		3. Coming in contact with overbridges, &c., during the travelling of trains.		4. Coming in contact, while shunting, with vehicles, &c., standing in adjoining lines.		5. Getting on or off trains, engines, &c.		6. Whilst loading, unloading, or sheeting.		Total.		Total Passengers.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
	STATE IMPERIAL.																		
1	East Indian (*a*)																		
2	Rajputana-Malwa (*b*)				3				1								1		1
3	Bengal-Nágpur (*c*)																		
4	Southern Mahratta (*d*)								1								1		1
5	Ditto, Mysore Section				1														
6	Indian Midland (*e*)																		
7	North Western (*f*)				1				1								1		1
8	Oudh and Rohilkhand (*g*)				1		1		1								2		2
9	Wardha Coal				1												1		1
	STATE PROVINCIAL.																		
10	Eastern Bengal (*h*)																		
11	Nalhátí				1				1								1		1
12	Tirhoot																		
13	Lucknow-Sitapur-Sihrámau																		
14	Jorhát																		
15	Cherra-Companyganj																		
16	Burma (*i*)																		
	GUARANTEED COMPANIES.																		
17	Madras																		
18	South Indian (*j*)																		
19	Great Indian Peninsula (*k*) ...																		
20	Bombay, Baroda and Central India (*l*).																		
	ASSISTED COMPANIES.																		
21	Darjeeling-Himalayan																		
22	Deoghur																		
23	Dibru-Sadiya																		
24	Bengal and North-Western																		
25	Rohilkhand-Kumaun (*m*)								1								1		1
26	Thâton-Duyinzáik																		
	FOREIGN.																		
27	Pondicherry																		
28	West of India Portuguese																		
	NATIVE STATES.																		
29	H. H. the Nizam's Guaranteed (*n*) ...																		
30	H. H. the Gaekwar's																		
31	Bhávnagar-Gondal-Junágarh-Porbandar.																		
32	Morvi																		
33	Jodhpore																		
	TOTAL ... 1889...	2	9	4	14	3	13	1	...	...	...	...	3	14	3	16	53	42	163
	TOTAL ... Average for 5 corresponding previous quarters (*o*)...	...	2	...	2	1	5	1	1	10	7	1	2	...	4	2	1	1	2

SERVANTS.

FROM CAUSES OTHER THAN ACCIDENTS TO TRAINS, &c.

Serial Number.	RAILWAYS.	7. Whilst braking, spragging or chocking wheels.		8. Whilst working at cranes or capstans.		9. Whilst working on the permanent-way or in sidings.		10. Whilst walking along the line on the way home or to work.		11. Whilst walking, crossing, or standing on the line.		12. Whilst passing between vehicles.		13. Whilst attending to the machinery of engines, cleaning them, &c.		14. Whilst attending to gates at level-crossings.		15. Falling or being caught between vehicles and platforms.		16. Falling off ladders, scaffolds, platforms, &c.		17. By falling of lamps, wagon-doors, timber, weights, &c.		18. Whilst coupling or uncoupling wagons.		19. Miscellaneous.		Total.		Total Servants.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
	STATE IMPERIAL.																														
1	East Indian (*a*)				2	1	2		1	1															2	27	5	51	5	51	
2	Rajputana-Malwa (*b*)																									1		8		11	
3	Bengal-Nágpur (*c*)																											1		1	
4	Southern Mahratta (*d*)					1																				2	1	3	1	4	
5	Ditto, Mysore Section																														
6	Indian Midland (*e*)									1		1					1									1		3		5	
7	North Western (*f*)											2	1	1												2		9		8	
8	Oudh and Rohilkhand (*g*)											1								1						1		4		5	
9	Wardha Coal																														
	STATE PROVINCIAL.																														
10	Eastern Bengal (*h*)																														
11	Nalhátí															1										2	3	9	3	9	
12	Tirhoot																											1		1	
13	Lucknow-Sitapur-Sihrámau																	1								1		3		3	
14	Jorhát																														
15	Cherra-Companyganj																											1		1	
16	Burma (*i*)												1							1						4	3	5	3	5	
	GUARANTEED COMPANIES.																														
17	Madras																														
18	South Indian (*j*)																									1	2	14	2	14	
19	Great Indian Peninsula (*k*) ...					5		1				2																13		13	
20	Bombay, Baroda and Central India (*l*).		1			2	1		3	2																3		4	1	11	7	32	8	33	
	ASSISTED COMPANIES.						1		1			1																1		2	4	2	4	
21	Darjeeling-Himalayan																														
22	Deoghur																														
23	Dibru-Sadiya																														
24	Bengal and North-Western																														
25	Rohilkhand-Kumaun (*m*)																											1		1	
26	Thâton-Duyinzáik																														
	FOREIGN.																														
27	Pondicherry																														
28	West of India Portuguese																														
	NATIVE STATES.																														
29	H. H. the Nizam's Guaranteed (*n*) ...																											1		1	
30	H. H. the Gaekwar's																									2		4		4	
31	Bhávnagar-Gondal-Junágarh-Porbandar.																											1		1	
32	Morvi																											1		1	
33	Jodhpore																														
	TOTAL ... 1889...	1	...	3	2	11	4	6	9	5	1	4	1	2	2	1	2	2	..	5	...	6	2	8	6	53	42	163	44	172	
	TOTAL ... Average for 5 corresponding previous quarters (*o*)...	...	2	...	2	1	5	1	1	10	7	1	2	...	4	2	1	1	2	..	4	...	5	2	8	5	33	37	132	41	146	

OTHERS.

Serial Number.	RAILWAYS.	Whilst passing over the line at level-crossings.		Trespassers.		Suicides.		Miscellaneous.		Total Others.		Total all Classes.		Serial Number.
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
	STATE IMPERIAL.													
1	East Indian (*a*)	1	1	14	4	14	2	1	3	30	10	35	66	1
2	Rajputana-Malwa (*b*)			3	4					3	4	4	17	2
3	Bengal-Nágpur (*c*)			1						1		1	2	3
4	Southern Mahratta (*d*)			1						1		2	4	4
5	Ditto, Mysore Section													5
6	Indian Midland (*e*)			1						1		1	1	6
7	North Western (*f*)			1								4	11	7
8	Oudh and Rohilkhand (*g*)			9	3	3				12	3	26	22	8
9	Wardha Coal			2	1	6		2		10	1	15	8	9
	STATE PROVINCIAL.													
10	Eastern Bengal (*h*)													
11	Nalhátí			8	3	1				9	3	19	94	10
12	Tirhoot												1	11
13	Lucknow-Sitapur-Sihrámau			3						3		6	4	12
14	Jorhát													13
15	Cherra-Companyganj												1	15
16	Burma (*i*)			1	1					1	1	5	11	16
	GUARANTEED COMPANIES.													
17	Madras													17
18	South Indian (*j*)			1						1		3	17	18
19	Great Indian Peninsula (*k*) ...						1				1		17	19
20	Bombay, Baroda and Central India (*l*).			3	1	1				4	1	14	46	20
	ASSISTED COMPANIES.			2	1					2	1	6	5	
21	Darjeeling-Himalayan													21
22	Deoghur													22
23	Dibru-Sadiya													23
24	Bengal and North-Western													24
25	Rohilkhand-Kumaun (*m*)			1	1	1	...	1	1	2	...	7	2	25
26	Thâton-Duyinzáik													26
	FOREIGN.													
27	Pondicherry													27
28	West of India Portuguese													28
	NATIVE STATES.													
29	H. H. the Nizam's Guaranteed (*n*) ...			1						1		1	5	29
30	H. H. the Gaekwar's													30
31	Bhávnagar-Gondal-Junágarh-Porbandar.												1	31
32	Morvi												1	32
33	Jodhpore												1	33
	TOTAL ... 1889...	5	2	50	19	27	3	6	5	88	29	150	335	
	TOTAL ... Average for 5 corresponding previous quarters (*o*)...	1	2	43	12	10	...	3	5	57	19	106	201	

(*a*) Includes the Patna-Gya, Dildárnagar-Ghazipur and Tarakeshwar Railways.
(*b*) Includes H. H. the Gaekwar's Viramgám-Mehsana-Vadnagar Railway.
(*c*) Includes the Katni-Umaria Branch.
(*d*) Includes the Bellary-Kistna State Railway.
(*e*) Includes the Sindia and Bhopal-Itársi State Railways.
(*f*) Includes the Amritsar-Pathánkot and Rájpura-Bhatinda State Railways.
(*g*) Includes the Benares Branch.
(*h*) Includes the Bengal Central Railway.
(*i*) Includes the Toungoo-Mandalay Extension.
(*j*) Includes the Villupuram-Dharmavaram, Nellore Branch.
(*k*) Includes the Dhond-Manmád, Khámgaon and Amráoti State Railways.
(*l*) Includes the Pátri Branch.
(*m*) Includes the Bareilly-Pilibhit State Railway.
(*n*) Includes the Bezváda Extension.
(*o*) Except where statistics for five quarters are not available for any line.

TABLE No. 3.

ACCIDENTS to TRAINS, ROLLING-STOCK, PERMANENT-WAY, &c., reported during the Second Quarter of 1889 as having occurred on the several RAILWAYS open for Traffic in INDIA, distinguishing the different Classes of Accidents and the Number of Passengers and Others, and of Railway Servants KILLED or INJURED in each Class of Accident.

SEE ALSO TABLE No. 4.

STATE IMPERIAL.

CLASS.	EAST INDIAN (a).							RAJPUTANA-MALWA (c).							BENGAL-NAGPUR. (d).							SOUTHERN MAHRATTA (e).							SOUTHERN MAHRATTA, MYSORE SECTION.						
	No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains, or parts of passenger trains	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	...	...	...	...	...	...	...	2	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Collisions between goods trains, or parts of goods trains	2	(b)1	(b)1	...	...	1	1	4	...	...	...	...	...	...	2	...	...	...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...
4. Collisions between light engines	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. Passenger trains, or parts of passenger trains, leaving the rails	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6. Goods trains, or parts of goods trains, engines, &c., leaving the rails	7	...	...	...	...	...	...	3	...	...	...	...	...	...	2	...	...	...	...	...	...	6	...	...	...	...	...	...	1	...	...	...	...	...	...
7. Trains or engines travelling in the wrong direction through points	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8. Trains running into stations or sidings at too high a speed	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9. Trains running over cattle on the line	32	...	...	...	...	...	...	94	...	..	...	...	...	...	24	...	...	...	...	...	...	83	...	...	...	...	...	...	15	...	...	...	...	...	...
10. Ditto over obstructions on the line	2	...	...	...	...	...	...	9	...	1	...	...	...	1	1	...	...	...	...	...	...	4	(f)1	...	...	...	1	...	...	...	...	...	...	...	...
11. Ditto through gates at level-crossings	...	...	...	...	...	...	...	1	...	..	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12. The bursting of boilers of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12(a). Ditto of tubes, &c., of engines	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
13. The failure of machinery, springs, &c., of engines	...	...	...	...	...	...	...	5	...	...	...	...	...	...	2	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
14. Ditto of tyres	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15. Ditto of wheels	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16. Ditto of axles	...	...	...	...	...	...	...	34	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17. Ditto of brake apparatus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18. Ditto of couplings	1	...	...	...	...	...	...	9	...	...	...	...	...	...	3	...	...	...	...	...	...	1	...	...	...	...	...	...	2	...	...	...	...	...	...
19. Ditto of tunnels, bridges, viaducts, culverts, &c.	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20. Broken rails	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21. The flooding of portions of permanent-way	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
22. Slips in cuttings or embankments	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23. Fire in trains	...	...	...	...	...	...	...	2	...	...	..	...	...	...	...	...	...	...	...	...	...	8	...	...	...	...	...	...	1	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25. Other accidents	3	...	...	...	...	...	...	12	...	...	...	1	...	1	3	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL ALL CLASSES	53	(b)1	(b)1	...	...	1	1	185	...	1	...	3	...	4	39	...	...	...	...	...	...	112	(f)1	...	...	1	1	1	19	...	...	...	...	...	...
Number of passenger miles	246,045,516							123,911,704							7,656,891							34,348,874							6,692,727						
,, of servants employed	26,971							12,245							2,460							6,226							1,124						
Train-mileage of all descriptions	2,201,122							1,968,319							122,031							403,548							56,475						

(a) Includes the Patna-Gya, Dildárnagar-Gházipur and Tárakeshwar Railways.
(b) Not a passenger, but a trespasser.
(c) Includes H. H. the Gackwar's Viramgam-Mehsána-Vadnagar Railway.
(d) Includes the Katni-Umaria Branch.
(e) Includes the Bellary-Kistna State Railway.
(f) Not a passenger, but a cart-man.

TABLE No. 3.—ACCIDENTS to TRAINS, ROLLING-STOCK, PERMANENT-WAY, &c., reported during the Second Quarter of 1889, &c.—*continued.*

SEE ALSO TABLE No. 4.

STATE IMPERIAL—*concluded.* | STATE PROVINCIAL.

CLASS.	INDIAN-MIDLAND (a).							NORTH WESTERN (b).							OUDH AND ROHILKHAND (c).							WARDHA COAL.							EASTERN BENGAL (e).						
	No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains, or parts of passenger trains	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2. Collisions between passenger trains and goods or mineral trains, engines, and vehicles standing foul of the line	..	...	...	...	...	...	...	4	...	...	...	...	...	...	2	...	1	...	1	...	2	...	...	...	...	...	...	...	2	...	1	...	...	...	1
3. Collisions between goods trains, or parts of goods trains	...	..	...	...	...	...	..	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...
4. Collisions between light engines	1	..	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. Passenger trains, or parts of passenger trains, leaving the rails	1	...	...	...	1	...	1	2	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	2	7	80	...	...	7	80
6. Goods trains, or parts of goods trains, engines, &c., leaving the rails	7	...	..	...	...	..	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	...	...	...	...	...	...
7. Trains or engines travelling in the wrong direction through points	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...
8. Trains running into stations or sidings at too high a speed	...	...	...	...	...	...	...	...	...	...	...	...	...	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9. Trains running over cattle on the line	30	...	..	...	...	..	...	26	...	...	...	...	...	..	28	...	...	...	...	...	...	...	...	...	...	...	...	...	70	...	...	...	...	...	...
10. Ditto over obstructions on the line	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...
11. Ditto through gates at level-crossings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
12. The bursting of boilers of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12(a). Ditto of tubes, &c., of engines	...	...	...	...	...	...	...	10	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13. The failure of machinery, springs, &c., of engines	2	...	...	...	...	...	...	17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...
14. Ditto of tyres	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
15. Ditto of wheels	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16. Ditto of axles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
17. Ditto of brake apparatus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18. Ditto of couplings	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...
19. Ditto of tunnels, bridges, viaducts, culverts, &c.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20. Broken rails	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...
21. The flooding of portions of permanent-way	...	...	...	...	...	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22. Slips in cuttings or embankments	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23. Fire in trains	...	...	...	...	...	...	...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
25. Other accidents	8	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...
TOTAL ALL CLASSES	55	...	...	...	1	...	1	107	...	...	...	...	...	...	37	...	1	...	1	...	2	...	...	...	..	...	...	...	118	7	81	...	...	7	81
Number of passenger miles	20,820,568							142,547,322							64,341,722							1,112,235							64,521,460						
,, of servants employed	6,421							24,630							6,482							414(d)							9,639						
Train mileage of all descriptions	293,748							1,942,686							711,834							23,006							652,083						

(a) Includes the Sindia and Bhopal-Itársi State Railways.
(b) Includes the Amritsar-Pathánkot and Rajpura-Bhátinda State Railways.
(c) Includes the Benares Branch.
(d) Includes 21 servants employed on Colliery.
(e) Includes the Bengal Central Railway.

TABLE No. 3.—ACCIDENTS to TRAINS, ROLLING-STOCK, PERMANENT-WAY, &c., reported during the Second Quarter of 1889, &c.—*continued.*

SEE ALSO TABLE No. 4.

STATE PROVINCIAL—*contd.*

CLASS.	NALHA'TI.							TIRHOOT.							LUCKNOW-SITAPUR-SIHRA'MAU.							JORHA'T.							CHERRA-COMPANYGANJ.						
	No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains, or parts of passenger trains	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2. Collisions between passenger trains and goods or mineral trains, engines, and vehicles standing foul of the line	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Collisions between goods trains, or parts of goods trains	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4. Collisions between light engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. Passenger trains, or parts of passenger trains, leaving the rails	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6. Goods trains, or parts of goods trains, engines, &c., leaving the rails	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...
7. Trains or engines travelling in the wrong direction through points	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8. Trains running into stations or sidings at too high a speed	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9. Trains running over cattle on the line	2	...	...	...	...	...	...	1	...	...	...	...	...	...	5	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
10. Ditto over obstructions on the line	...	...	...	...	...	...	...	1	...	1	1	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11. Ditto through gates at level-crossings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12. The bursting of boilers of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12(a). Ditto of tubes, &c., of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13. The failure of machinery, springs, &c., of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14. Ditto of tyres	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15. Ditto of wheels	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16. Ditto of axles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17. Ditto of brake apparatus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18. Ditto of couplings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19. Ditto of tunnels, bridges, viaducts, culverts, &c.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20. Broken rails	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21. The flooding of portions of permanent-way	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22. Slips in cuttings or embankments	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23. Fire in trains	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25. Other accidents	1	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL ALL CLASSES	3	...	...	...	1	...	1	8	...	1	1	1	1	2	5	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Number of passenger miles		785,869							22,055,277							4,313,459							129,840							20,120					
„ of servants employed		113							1,744							546							160							46					
Train mileage of all descriptions		11,009							138,999							43,583							5,606							3,080					

TABLE No. 3.—ACCIDENTS to TRAINS, ROLLING-STOCK, PERMANENT-WAY, &c., reported during the Second Quarter of 1889, &c.—*continued.*

SEE ALSO TABLE No. 4.

STATE PROVINCIAL—*concluded.* | GUARANTEED COMPANIES.

CLASS.	BURMA(a).							MADRAS.							SOUTH INDIAN(b).							GREAT INDIAN PENINSULA(c).							BOMBAY, BARODA AND CENTRAL INDIA(d).						
	No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains, or parts of passenger trains	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2. Collisions between passenger trains and goods or mineral trains, engines, and vehicles standing foul of the line	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Collisions between goods trains, or parts of goods trains	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2	...	...	...	...	...	...	3	1	3	...	...	1	3	1	...	...	...	...	...
4. Collisions between light engines	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. Passenger trains, or parts of passenger trains leaving the rails	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
6. Goods trains, or parts of goods trains, engines, &c., leaving the rails	3	...	...	...	...	...	...	7	...	...	...	...	...	...	9	...	...	...	...	...	...	4	...	...	...	...	...	...	3	...	...	...	...	...
7. Trains or engines travelling in the wrong direction through points	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8. Trains running into stations or sidings at too high a speed	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9. Trains running over cattle on the line	1	...	...	...	...	...	...	29	...	...	...	...	...	...	32	...	...	...	...	...	...	23	...	...	...	...	...	...	8	...	...	...	...	...	...
10. Ditto over obstructions on the line	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	5	...	...	...	...	...	...	2	...	...	...	...	...	...
11. Ditto through gates at level-crossings	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2	...	...	...	...	...	...	1	...	...	...	...	...	...
12. The bursting of boilers of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12(a). Ditto of tubes, &c., of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
13. The failure of machinery, springs, &c., of engines	1	...	...	...	...	...	...	2	...	...	...	...	...	...	7	...	...	...	...	...	...	2	...	...	...	...	...	...	4	...	...	...	...	...	...
14. Ditto of tyres	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15. Ditto of wheels	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16. Ditto of axles	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17. Ditto of brake apparatus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18. Ditto of couplings	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19. Ditto of tunnels, bridges, viaducts, culverts, &c.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20. Broken rails	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
21. The flooding of portions of permanent-way	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
22. Slips in cuttings or embankments	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
23. Fire in trains	...	...	...	...	...	...	...	6	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	4	...	...	1	...	1	...	...	...	...	...	...	...	...
25. Other accidents	...	...	...	...	...	...	...	2	...	...	...	...	...	...	7	...	...	...	...	...	...	8	1	1	...	...	1	1	19	...	...	...	...	...	...
TOTAL ALL CLASSES	9	...	...	...	...	...	...	51	...	...	...	...	...	...	72	...	...	...	...	...	...	63	2	4	1	1	3	5	40	...	...	...	...	...	...
Number of Passenger miles		48,669,826							83,794,007							79,116,399							135,969,980							67,641,650					
„ of Servants employed		5,267							6,512							9,964							25,179							6,235					
Train mileage of all descriptions		379,051							622,724							550,026							2,600,598							660,920					

(a) Includes the Toungoo-Mandalay Extension. (b) Includes the Villupuram-Dharmavaram, Nellore Branch. (c) Includes the Dhond-Manmád, Khámgaon and Amráoti State Railways. (d) Includes the Pátri Branch.

TABLE No. 3.—ACCIDENTS to TRAINS, ROLLING-STOCK, PERMANENT-WAY, &c., reported during the Second Quarter of 1889, &c.—*continued.*

SEE ALSO TABLE No. 4.

ASSISTED COMPANIES.

CLASS.	DARJEELING-HIMALAYAN.							DEOGHUR.							DIBRU-SADIYA.							BENGAL AND NORTH-WESTERN.							ROHILKHAND-KUMAUN(a).						
	No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains, or parts of passenger trains	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2. Collisions between passenger trains and goods or mineral trains, engines, and vehicles standing foul of the line	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Collisions between goods trains, or parts of goods trains	...	...	...	...	...	...	...	...	...	...	..	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
4. Collisions between light engines ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. Passenger trains, or parts of passenger trains leaving the rails	1	...	..	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...
6. Goods trains, or parts of goods trains, engines, &c., leaving the rails	4	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
7. Trains or engines travelling in the wrong direction through points	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
8. Trains running into stations or sidings at too high a speed	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9. Trains running over cattle on the line	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	..	...	...	...	...	...	13	...	...	...	...	...	...	4	...	...	...	...	...	...
10. Ditto over obstructions on the line	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	..	...	...	...	...
11. Ditto through gates at level-crossings	...	.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...
12. The bursting of boilers of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12(a). Ditto of tubes, &c., of engines	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...
13. The failure of machinery, springs, &c., of engines	3	...	...	...	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14. Ditto of tyres	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15. Ditto of wheels	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16. Ditto of axles	1	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17. Ditto of brake apparatus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18. Ditto of couplings	1	...	...	...	...	...	...	...	...	...	...	...	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19. Ditto of tunnels, bridges, viaducts, culverts, &c.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20. Broken rails	...	...	...	...	...	...	...	...	...	...	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
21. The flooding of portions of permanent-way	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22. Slips in cuttings or embankments	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23. Fire in trains	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
25. Other accidents	...	...	...	..	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL ALL CLASSES	10	...	...	..	...	...	...	...	...	...	...	...	...	...	33	...	...	...	..	...	...	26	...	...	...	...	..	...	6	...	...	...	...	...	...
Number of passenger miles				299,893							137,722							989,995							23,440,752							2,698,821			
„ of servants employed				527							53							745							3,355							864			
Train mileage of all descriptions				36,081							3,293							30,839							263,007							27,947			

(a) Includes the Bareilly-Pilibhit State Railway.

TABLE No. 3.—ACCIDENTS to TRAINS, ROLLING-STOCK, PERMANENT-WAY, &c., reported during the Second Quarter of 1889, &c.—*continued.*

SEE ALSO TABLE NO. 4.

ASSISTED COMPANIES—*concluded.* | FOREIGN: | NATIVE STATES.

CLASS.	THATÔN-DUYINZA'IK.							PONDICHERRY.							WEST OF INDIA PORTUGUESE.							HIS HIGHNESS THE NIZAM'S GUARANTEED(a).							H. H. THE GAEKWAR'S.						
	No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains, or parts of passenger trains	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
2. Collisions between passenger trains and goods or mineral trains, engines, and vehicles standing foul of the line	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Collisions between goods trains, or parts of goods trains	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
4. Collisions between light engines ...	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. Passenger trains, or parts of passenger trains, leaving the rails	...	...	...	...	...	...	...															2	...	...	...	...	...	...	...	...	...	...	...	...	...
6. Goods trains, or parts of goods trains, engines, &c., leaving the rails	...	...	...	.	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
7. Trains or engines travelling in the wrong direction through points	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
8. Trains running into stations or sidings at too high a speed	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
9. Trains running over cattle on the line	...	...	...	...	...	...	...															24	...	...	...	...	...	...	...	...	...	...	...	...	...
10. Ditto over obstructions on the line	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
11. Ditto through gates at level-crossings	...	...	...	...	...	...	...	Worked by the South Indian Railway.							Information not furnished.							...	...	...	...	...	...	...	...	...	...	...	...	...	...
12. The bursting of boilers of engines	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
12(a). The bursting of tubes, &c., of engines	...	...	...	...	...	...	..															...	...	...	...	...	...	...	...	...	...	...	...	...	...
13. The failure of machinery, springs, &c., of engines	...	...	..	...	...	...	...															5	...	...	...	...	...	...	...	...	...	...	...	...	...
14. Ditto of tyres	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
15. Ditto of wheels	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
16. Ditto of axles	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
17. Ditto of brake apparatus	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
18. Ditto of couplings	..	...	...	...	...	...	...															1	...	...	...	...	...	...	...	...	...	...	...	...	...
19. Ditto of tunnels, bridges, viaducts, culverts, &c.	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
20. Broken rails	1	..	..	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
21. The flooding of portions of permanent-way	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
22. Slips in cuttings or embankments	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
23. Fire in trains	...	...	...	...	...	...	...															1	...	...	...	...	...	...	...	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	...	...	...	...	...	...	...															...	...	...	...	...	...	...	...	...	...	...	...	...	...
25 Other accidents	...	...	...	...	...	...	...															1	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL ALL CLASSES	1	...	...	...	...	...	...															34	...	...	...	...	...	...	...	...	...	...	...	...	...
Number of passenger miles				26,832							...							...							14,118,525							1,644,205			
„ of servants employed				65							...							...							2,005							220			
Train mileage of all descriptions				2,400							...							...							154,217							14,692			

(a) Includes the Bezvada Extension.

TABLE No. 3.—ACCIDENTS to TRAINS, ROLLING-STOCK, PERMANENT-WAY, &c., reported during the Second Quarter of 1889, &c.—*concluded.*

SEE ALSO TABLE No. 4.

CLASS.	NATIVE STATES—*concluded.*																				TOTAL OF ALL RAILWAYS.						
	BHÁVNAGAR-GONDAL-JUNÁGARH-PORBANDAR.							MORVI.							JODHPORE.												
	No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.		No.	Number of Passengers and others.		Number of Servants.		Total all Classes.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains, or parts of passenger trains	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
2. Collisions between passenger trains and goods or mineral trains, engines, and vehicles standing foul of the line	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	...	2	...	3	...	5
3. Collisions between goods trains, or parts of goods trains	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23	2	4	...	1	2	5
4. Collisions between light engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...
5. Passenger trains, or parts of passenger trains, leaving the rails	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	7	80	...	1	7	81
6. Goods trains, or parts of goods trains, engines, &c., leaving the rails	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	96	...	...	...	...	...	...
7. Trains or engines travelling in the wrong direction through points	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15	...	...	...	...	...	...
8. Trains running into stations or sidings at too high a speed	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
9. Trains running over cattle on the line	...	7	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	561	...	...	...	...	...	...
10. Ditto over obstructions on the line	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	32	1	2	1	1	2	3
11. Ditto through gates at level-crossings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	...	...	...	...	...	...
12. The bursting of boilers of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12(*a*). Ditto of tubes, &c., of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	24	...	...	...	...	...	...
13. The failure of machinery, springs, &c., of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	60	...	...	...	...	...	...
14. Ditto of tyres	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...
15. Ditto of wheels	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16. Ditto of axles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39	...	...	...	1	...	1
17. Ditto of brake apparatus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18. Ditto of couplings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	35	...	...	...	...	...	...
19. Ditto of tunnels, bridges, viaducts, culverts, &c.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
20. Broken rails	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	...	...	...	...	...	...
21. The flooding of portions of permanent-way	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	18	...	...	...	...	...	...
22. Slips in cuttings or embankments	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
23. Fire in trains	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	46	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15	...	...	1	...	1	...
25. Other accidents	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	78	1	1	...	2	1	3
TOTAL ALL CLASSES	...	7	...	...	...	...	...	4	...	...	...	...	...	...	2	...	...	...	...	...	...	1,105	11	89	2	9	13	98
Number of passenger miles	...			11,719,858					1,533,884							3,760,046							1,214,868,979				
„ of servants employed	...			929					576							376							162,093				
Train mileage of all descriptions	...			135,533					26,041							31,097							14,115,595				

TABLE No. 4.

TABLE No. 4.

ACCIDENTS to TRAINS, ROLLING-STOCK, PERMANENT-WAY, &c., on the several RAILWAYS open for Traffic in INDIA during the Second Quarter of 1889, distinguishing the different Classes of ACCIDENTS, the Number of PASSENGERS and OTHERS, and the Number of RAILWAY SERVANTS KILLED or INJURED thereby.

Serial Number.	RAILWAYS.	1. Collisions between passenger trains, or parts of passenger trains.	2. Collisions between passenger trains and goods or mineral trains, engines, and vehicles standing foul of the line.	3. Collisions between goods trains, or parts of goods trains.	4. Collisions between light engines.	5. Passenger trains, or parts of passenger trains, leaving the rails.	6. Goods trains, or parts of goods trains, engines, &c., leaving the rails.	7. Trains or engines travelling in the wrong direction through points.	8. Trains running into stations or sidings at too high a speed.	9. Trains running over cattle on the line.	10. Trains running over obstructions on the line.	11. Trains running through gates at level-crossings.	12. The bursting of boilers of engines.	12(e). The bursting of tubes, &c., of engines.	13. The failure of machinery, springs, &c., of engines.	14. The failure of tyres.	15. The failure of wheels.	16. The failure of axles.	17. The failure of brake apparatus.	18. The failure of couplings.	19. The failure of tunnels, bridges, viaducts, culverts, &c.	20. Broken rails.	21. The flooding of portions of permanent-way.	22. Slips in cuttings or embankments.	23. Fire in trains.	24. Fire at stations, or involving injury to bridges or viaducts.	25. Other accidents.	Total all Classes.	Number of Passengers and others. Killed.	Number of Passengers and others. Injured.	Number of Servants. Killed.	Number of Servants. Injured.	Total all Classes. Killed.	Total all Classes. Injured.	Mean miles of Railway open.	Number of Passengers carried.	Train mileage of all descriptions.	Passenger mileage.	Per mile open. Number of passengers carried.	Per mile open. Train mileage of all descriptions.	Per mile open. Passenger mileage.	Total passengers. Per million of passengers. Killed.	Total passengers. Per million of passengers. Injured.	Total passengers. Per million passenger miles. Killed.	Total passengers. Per million passenger miles. Injured.	Serial Number.
	STATE IMPERIAL.																																											
1	East Indian (*a*)	1	...	2	...	...	7	1	1	32	2	...	...	...	...	1	...	...	...	...	...	...	...	...	1	3	53	(*b*)1	(*b*)1	...	...	1	1	1,605	4,080,963	2,201,122	246,045,516	2,543	1,370	153,299	...	...	...	...	1
2	Rajputana-Malwa (*c*)	...	2	4	1	...	3	...	1	94	9	1	...	5	5	...	1	...	...	...	1	1	...	...	...	2	12	185	...	1	...	3	...	4	1,691¾	2,337,142	1,968,319	123,911,704	1,382	1,163	73,245	...	0·428	...	0·008	2
3	Bengal-Nágpur (*d*) ...	...	...	2	...	...	2	...	...	24	1	1	...	...	...	...	...	...	34	...	9	...	...	...	...	1	3	39	...	...	...	...	...	...	293	225,774	122,031	7,656,891	771	416	26,133	...	...	...	...	3
4	Southern Mahratta (*e*) ...	...	...	2	...	...	6	...	...	83	4	...	...	...	...	...	...	...	...	...	3	...	...	...	...	1	3	39	...	...	...	...	1	1	856⅜	715,566	403,548	34,348,874	835	471	40,092	...	...	...	...	4
5	Ditto, Mysore Section ...	...	...	...	...	...	1	...	...	15	...	...	...	1	...	...	...	...	...	...	1	...	...	...	8	...	2	112	(*m*)1	...	...	...	1	1	218⅝	196,418	56,475	6,692,727	898	258	30,595	...	...	...	...	5
6	Indian Midland (*f*) ...	...	...	...	1	...	10	1	...	26	...	...	...	10	17	...	...	...	1	...	...	1	...	...	...	...	8	55	...	...	...	1	...	1	611	340,463	293,748	20,820,568	557	481	34,076	...	...	...	...	6
7	North Western (*g*) ...	...	4	2	1	2	7	1	1	30	5	...	...	...	2	...	...	...	...	...	2	...	...	...	...	...	5	55	...	...	...	1	...	1	2,386	2,647,045	1,942,686	142,547,322	1,109	814	59,743	...	...	...	...	7
8	Oudh and Rohilkhand(*h*) ...	...	2	...	...	...	1	...	...	28	...	1	...	3	...	...	...	...	1	...	1	...	1	...	18	2	5	107	...	...	...	1	...	2	692½	1,390,010	711,834	64,341,722	2,007	1,028	92,912	...	0·719	...	0·016	8
9	Wardha Coal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37	...	1	...	1	...	2	45	44,744	23,006	1,112,235	994	511	24,716	...	...	...	...	9
	STATE PROVINCIAL.																																											
10	Eastern Bengal (*i*)	...	2	2	...	2	12	5	..	70	2	1	...	...	5	1	...	1	...	2	...	5	...	3	5	118	7	81	...	...	7	81	798	1,998,379	652,083	64,521,460	2,504	817	80,854	3·503	40·533	0·108	1·255	10
11	Nalháti	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	...	...	1	...	1	27¼	38,611	11,009	785,869	1,417	404	28,839	...	...	...	...	11
12	Tirhoot	...	1	1	...	...	...	3	...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	3	...	...	...	1	...	1	273	607,933	138,999	22,055,277	2,226	509	80,789	...	...	...	...	12
13	Lucknow-Sitapur-Sihrámau ...	...	...	...	...	...	4	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	8	...	(*j*)1	1	1	2	105	152,273	43,583	4,313,459	1,450	415	41,081	...	...	...	...	13
14	Jorhát	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	30⅓	17,634	5,606	129,840	578	184	4,257	...	...	...	...	14
15	Cherra-Companyganj	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	..	...	...	...	...	...	7½	4,152	3,080	20,120	554	411	2,683	...	...	...	...	15
16	Burma (*k*)...	...	...	...	...	...	3	...	...	1	...	2	...	...	1	...	...	...	1	...	1	...	...	...	...	...	9	...	...	...	...	...	...	553	1,368,622	379,051	48,669,826	2,475	685	88,011	...	...	...	...	16
	GUARANTEED COMPANIES.																																											
17	Madras	...	...	2	1	2	7	...	...	29	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	6	...	2	51	...	...	...	...	...	...	839	2,222,696	622,724	83,794,007	2,649	742	99,874	...	...	...	...	17
18	South Indian (*l*)	...	2	2	...	...	9	...	...	32	1	2	...	4	7	...	...	...	...	...	...	...	...	...	...	3	2	7	72	...	...	...	...	...	...	738	2,349,763	550,026	79,116,399	3,184	745	107,204	...	...	...	...	18
19	Great Indian Peninsula (*n*) ...	...	...	3	...	...	4	...	...	23	5	2	...	...	2	...	...	...	1	...	...	...	...	1	...	1	6	4	8	63	2	4	1	1	3	5	1,445½	2,552,527	2,600,598	135,969,980	1,766	1,799	94,064	0·784	1·567	0·015	0·029	19
20	Bombay, Baroda, and Central India(*o*)	...	...	1	...	1	3	...	...	8	2	1	..	1	4	...	...	...	...	...	...	...	...	4	...	...	19	40	...	...	...	...	...	...	461	2,623,950	660,920	67,644,650	5,692	1,434	146,735	...	...	...	...	20
	ASSISTED COMPANIES.																																											
21	Darjeeling-Himalayan	...	...	...	...	1	4	...	...	...	...	...	...	...	3	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	51	12,577	36,081	299,893	247	708	5,880	...	...	...	...	21
22	Deoghur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	...	...	...	...	...	...	4½	28,752	3,293	137,722	6,053	693	28,994	...	...	...	...	22
23	Dibru-Sadiya	...	...	...	1	3	6	...	...	7	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	78	17,405	30,839	989,995	223	395	12,692	...	...	...	...	23
24	Bengal and North-Western ...	...	...	...	...	1	6	3	...	13	...	...	...	...	1	...	...	...	...	13	...	...	1	...	...	...	...	1	33	...	...	...	...	...	...	376	658,325	263,007	23,440,752	1,751	699	62,342	...	...	...	...	24
25	Rohilkhand-Kumaun (*p*) ...	...	...	...	...	1	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	26	...	...	...	...	...	...	91	79,015	27,947	2,698,821	868	307	29,657	...	...	...	...	25
26	Thâton-Duyinzáik	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	8	3,354	2,400	26,832	419	300	3,354	...	...	...	...	26
																											1	...	...	...	...	...	...												
	FOREIGN.																																											
27	Pondicherry ...	Indian not furnished.																																										27
28	West of India Portuguese ...	Worked by the South Indian Railway. Information not furnished.																																										28
	NATIVE STATES.																																											
29	H. H. the Nizam's Guaranteed (*q*)...	...	...	...	...	2	...	...	...	24	...	...	...	...	5	...	...	...	...	1	...	...	...	...	1	4	34	...	...	...	...	1	1	354	246,276	154,217	14,118,525	696	436	39,883	...	...	...	...	29
30	H. H. the Gaekwar's	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	34	...	...	...	...	...	...	59	77,046	14,692	1,644,205	1,306	249	27,868	...	...	...	...	30
31	Bhávnagar-Gondal-Junágarh-Porbandar	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...	260	310,518	135,533	11,719,858	1,194	521	45,076	...	...	...	...	31
32	Morvi	...	...	...	...	...	2	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	68	40,939	26,041	1,533,884	602	383	22,557	...	...	...	...	62
33	Jodhpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	124	83,207	31,097	3,760,046	671	251	30,323	...	...	...	...	33
	TOTAL 1889...	1	13	23	4	16	96	15	3	561	32	11	...	24	60	2	...	39	...	35	1	11	18	1	4b	15	78	1,105	11	89	2	9	13	98	15,151¼	27,472,079	14,115,595	1,214,868,979	1,813	932	80,183	0·328	3·167	0·007	0·072	
	TOTAL Average for 5 corresponding previous quarters (*r*)	1	14	22	2	23	80	13	3	484	26	15	...	17	55	2	9	12	..	35	...	4	9	6	90	14	70	1,006	1	11	3	13	4	24	12.766	22,202,468	13,009,934	1,000,583,618	1,739	1,019	78,376	0·045	0·495	0·001	0·011	

(*a*) Includes the Patna-Gya, Dildárnagar-Gházipur and Tárakeshwar Railways.
(*b*) Not a passenger, but a trespasser.
(*c*) Includes H. H. the Gaekwar's Viramgám–Mehsána-Vadnagar Railway.
(*d*) Includes the Katni-Umaria Branch.
(*e*) Includes the Bellary-Kistna State Railway.
(*f*) Includes the Sindia and Bhopal-Itársi State Railways.
(*g*) Includes the Amritsar-Pathánkot and Rajpura-Bhátinda State Railways.
(*h*) Includes the Benares Branch.
(*i*) Includes the Bengal Central Railway.
(*j*) Not a passenger, but a trolly fitter.
(*k*) Includes the Toungoo-Mandalay Extension.
(*l*) Includes the Villupuram-Dharmavaram, Nellore Branch.
(*m*) Not a passenger, but a cartman.
(*n*) Includes the Dhond-Manmad, Khámgaon and Amráoti State Railways.
(*o*) Includes the Pátri Branch.
(*p*) Includes the Bareilly-Pilibhit State Railway.
(*q*) Includes the Bezváda Extension.
(*r*) Except where statistics for five quarters are not available for any line.

TABLE No. 5.

ACCIDENTS to TRAINS, ROLLING-STOCK, PERMANENT-WAY, &c., on all RAILWAYS open for Traffic in INDIA and in ENGLAND during the year 1888, distinguishing the different Classes of ACCIDENTS, the Number of PASSENGERS and OTHERS, and the Number of RAILWAY SERVANTS KILLED or INJURED thereby.

RAILWAYS.	1. Collisions between passenger trains, or parts of passenger trains.	2. Collisions between passenger trains and goods or mineral trains, engines, and vehicles standing foul of the line.	3. Collisions between goods trains, or parts of goods trains.	4. Collisions between light engines.	5. Passenger trains, or parts of passenger trains, leaving the rails.	6. Goods trains, or parts of goods trains, engines, &c., leaving the rails.	7. Trains or engines travelling in the wrong direction through points.	8. Trains running into stations or sidings at too high a speed.	9. Trains running over cattle on the line.	10. Trains running over obstructions on the line.	11. Trains running through gates at level-crossings.	12. The bursting of boilers of engines.	12 (a). The bursting of tubes, &c., of engines	13. The failure of machinery, springs, &c., of engines.	14. The failure of tyres.	15. The failure of wheels.	16. The failure of axles.	17. The failure of brake apparatus.	18. The failure of couplings.	19. The failure of tunnels, bridges, viaducts culverts, &c.	20. Broken rails.	21. The flooding of portions of permanent-way.	22. Slips in cuttings or embankments.	23. Fire in trains.	24. Fire at stations, or involving injury to bridges or viaducts.	25. Other accidents.	Total all Classes.	NUMBER OF PASSENGERS AND OTHERS.		NUMBER OF SERVANTS.		TOTAL ALL CLASSES.		Mean miles of Railway open.	Number of Passengers carried.	Train mileage of all descriptions.	Passenger mileage.	PER 1,000 OPEN MILES.		TOTAL PASSENGERS.			
																													Killed.	Injured.	Killed.	Injured.	Killed.	Injured.					PASSENGERS.		PER MILLION OF PASSENGERS.		PER MILLION OF TRAIN MILES.	
																																					Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
In India	7	47	75	12	105	359	50	15	1,221	122	54	5	77	231	13	1	79	2	180	2	34	79	20	167	47	248	3,252	3	28	10	39	13	67	14,378½	103,156,013	50,109,119	4,349,054,980	0·21	1·95	0·03	0·27	0·06	0·56
Per 1,000,000 train miles ...	0·14	0·94	1·50	0·24	2·10	7·16	1·00	0·30	24·37	2·43	1·08	0·10	1·53	4·61	0·26	0·02	1·58	0·04	3·59	0·04	0·68	1·57	0·40	3·33	0·94	4·95	64·90	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
In England (United Kingdom) ...	35	54	12	...	53	4	7	20	13		57	1		10	668	2	288	1	11	...	250	11	17	6	3	3	1,644	11	594	7	93	18	687	19,812	(a) 743,676,073	291,197,134	Not available	0·56	29·98	0·01	0·80	0·04	2·04
Per 1,000,000 train miles ...	0·12	0·19	0·04	...	0·18	0·01	0·02	0·07	0·45		0·20	...		0·03	2·29	0·01	0·99	...	0·04	...	0·86	0·04	0·06	0·02	0·01	0·01	5·64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

(a) Including holders of season or periodical tickets.

Report on the accident, which occurred on the 15th April 1889, to No. 45 Up mixed train on the Northern Section of the Eastern Bengal State Railway, near Madhnagar Station, by Mr. G. E. Moore, Deputy Consulting Engineer to the Government of India for Railways, Calcutta.

Description.

1. In this case the train, consisting of an engine and tender, 1 low-sided wagon, 18 covered goods wagons, 11 coaching vehicles, and a brake-van, 31 vehicles in all, left Madhnagar (mile 32) at 16-49, right time. While passing over a bridge at mile 32, telegraph post 22, consisting of 9 spans of 6 metre girders of standard type, it was blown off the line, with the exception of the engine and tender, which were about 8 wagons' length clear of the north end of the bridge, and the brake and one third-class carriage just clear of the south end of the bridge. The front wheels of this carriage were derailed.

2. Out of 140 passengers, 89 were emigration coolies, and the rest third class passengers. There were no first or second class passengers. Seven were killed or died from injuries received, and 80 were more or less hurt, 15 of them seriously.

The damage to rolling-stock is estimated at ₹20,000.

Neither the permanent-way nor bridge structure were damaged.

3. The accident occurred just one mile north of Madhnagar Station, where the line crosses, nearly at right angles, a long, low rice-growing jheel, bordered on either side by thick bamboo jungle. The line crosses the jheel on a bank 15 feet high, with a bridge 9 spans of 6 metres near the north end. The height of the bridge from rail level to ground is 20 feet, including about 3 feet of mud and water.

The jheel is now quite dry with the exception of a pool under the bridge, but in the rains the water stands over it from 5 to 10 feet deep.

The line here runs almost due north, and is both straight and level.

The road-way across the bridge consists of sawn teak sleepers, 6′×9″×6″, spaced 1′6″ centre to centre, each sleeper being fixed to the girders by 4 hook-bolts. The rails were new, 50lb steel rails, only 6 months in the road, joined by clip pattern fish-plates, with 4 bolts to each joint, spiked down with 4 spikes in each sleeper.

When I examined the road it was in good order, and the gauge, though slightly tight, was very even throughout. I was informed that the only work done to the permanent-way on the bridge since the accident, was to straighten three or four sleepers which had been displaced.

The masonry of the bridge, with the exception of the ends of the cut-waters on the east side, and the coping of the east wings, where a few bricks had been displaced, was undisturbed.

I also examined the permanent-way for some distance on either side of the bridge without finding any defect.

The girders were undamaged and had not moved on their bed-plates.

Wheel marks were found on the sleepers between the rails and outside the rails on east side only, on the first two spans from the south end, and last span on the north end.

The middle of the bridge was devoid of wheel marks, except on the extreme east end of the sleepers. Most of the east ends of the bridge sleepers were crushed as if struck by the carriages in their descent.

Evidence.

P. P. Rogers, Executive Engineer.—After receiving telegram about the accident, I left Sára on the special relief train, starting from Sára at 19-55. The train arrived at Madhnagar at 22 o'clock, and left for scene of accident at 22-10. On arrival at scene of accident, mile 33, telegraph mile 22, after putting 3rd class carriage No. 73 on the road, and hand-shunting it, and the rear brake-van of the train, a short distance from the bridge, I examined the permanent-way south of the bridge, on the bridge, and north of the bridge, up to where engine was standing; south of the bridge the sleepers were practically undisturbed, only the two front wheels of 3rd class carriage No. 73 being derailed. A few sleepers on the bridge had been displaced by the wheels of the

vehicles having struck them, and some hook-bolts had been broken. There were no marks on the sleepers to show that both wheels had been on the sleepers, except in one place between the 7th and 8th piers. In most cases the sleepers had been hit in the outside of east rail, showing clearly that the vehicles were lifted up and blown clear off the rails, in a few instances hitting the sleepers outside the rail on their way down to the bed of the river. The noses of the brick piers on the east side were also cut away for a short distance. No damage was done to the girders, which were carefully examined, nor had any shifted on their bed-plates. Altogether about one dozen sleepers required to be straightened on the bridge after the accident. The road over the bridge was gauged, and found to be tight to gauge in places to the extent of from $\frac{1}{16}$ to $\frac{1}{8}$ of an inch. North of the bridge there were four wagons derailed within a distance of 50 feet of the bridge, two of them lying right across the road; from a point 50 feet from the face of north abutment up to where the engine was standing, *i.e.*, for a distance of 150 feet, the wagons had been thrown down the bank, but the road was untouched and, except on two or three sleepers close to engine where the first wagon was derailed, there were no marks of the wheels having been on the road at all. In no place, either on the bridge or in the road each side of it, were any marks found in the rails. Under the wagons derailed north of the bridge, the sleepers had been disturbed by reason of the derailment. There can be no doubt that the train was lifted off the road by the wind because of the absence of any mark in the bridge-sleepers showing that any one pair of wheels had been on them, which would have been the case had any wagon been derailed. On only a few sleepers between 7th and 8th piers were there any marks of a wheel on the west side of the bridge, and generally from the absence of marks of wheels on sleepers, and on road north of the bridge, it may fairly be inferred that the vehicles and wagons were lifted off the line bodily and thrown down.

S. W. Bowen, Permanent-way Inspector.—I have been a Permanent-way Inspector about 13 years, but have only been on this line about a week. Inspected the bridge, measured the girders on Friday, 12th, and it was then in good order. On the night of the accident I saw the ends in the east side of about 30 sleepers damaged by the vehicles falling over, and some of them knocked out of position slightly, and all the cut-walls on the east side, and wing walls of north abutment damaged; the road to the north of the abutment was slightly knocked out of place, and a few spikes bent.

When I arrived, the rear brake-van and a 3rd class carriage were on the south end five feet from the abutment; the leading wheels of the carriage were derailed. On the north end two wagons were standing across the rails, and two close to the bridge, derailed; the remainder were down the bank or in the river; beyond the wagon across the road up to the engine the road was undisturbed, and never touched by my men. There were no marks on the road to shew any derailment from defect in the road. In my opinion the train was overturned by a cyclone wind.

Joy Joyram.—I was Brakesman of 45 Up on the 15th April 1889. Have been 14 months on the Railway as signalman, gunner, and 4 months as brakesman; there were 11 vehicles behind the vehicle I was in, which was a third class carriage fitted with a brake No. 43; next to my carriage was an 18-feet empty wagon fitted for coolies, and run in case of any being taken ill on the road. When I left Madhnagar a few drops of rain were falling and it was stormy; just before coming to the bridge the wind was blowing harder, and as soon as we got on to the bridge my carriage was blown off. The carriage appeared to jump up and down by the force of the wind. I opened the brake shutter to apply my brake, heard a noise, looked out, saw the three vehicles behind me fall. My vehicle, No. 43, fell clear of the bridge into the water standing on its wheels; there were 12 passengers and myself in the carriage. No one in the carriage was hurt. We were only shaken. The water in the carriage was just over the seats. I should say it fell 30 feet.

H. S. Hutton.—I was Fireman of the engine of 45 Up of 15th; have been a fireman 16 months. After leaving Madhnagar there was a slight breeze and light rain; when I arrived at the bridge there was a stronger breeze—a regular cyclone; we went out slowly, starting from Madhnagar about 7 to 10 miles an hour. When we got to the bridge the breeze all but stopped; in going over the bridge I felt nothing wrong in the road, but after getting over it felt a sudden jerk; the engine stopped. I looked back on the west side; I saw the bridge clear and all the vehicles off; heard no crash but a howling of the wind. I first went with the driver to attend to the passengers, and then the driver sent me and the guard back to protect train and fetch assistance. I think the accident was caused by the train being blown and lifted off the bridge. There was one strong gust just as the engine stopped which lasted about 5 seconds.

Jean Louis Carreau.—I was Guard of 45 Up mixed on the 15th. I have had 3 years 9 months' Railway experience, 3 years Fireman and Driver, 9 months as Guard; left Madhnagar right time. It was then raining, cloudy and stormy; about ¾ mile out of Madhnagar close to the bridge I felt a jerk which threw me down; jumped up, looked out and saw the coaching vehicles falling over the bridge on east side, and the breeze was blowing from west to east. I had my window up on the next side as it was raining and blowing. When I looked out on the west side the breeze was so strong it nearly choked me. I applied my brake and stopped

almost instantly; while putting on the brake the brake-van rocked; went down to assist passengers; I helped a few out of the carriages and by that time Driver Read went across. I left him and Ticket Collector McDonald to help the passengers and went back to protect train, and send for assistance. I did not see the fireman, as he went to the north side to protect his train. I believe as the carriages fell they were upright, and seemed as if they had been lifted bodily off the line. I could only see the passenger vehicles. I could hear nothing but the howling of the wind.

The formation of my train was as follows:—

Engine No. 52

Low-sided truck	750	
Empty covered goods	193	
Ditto ditto	1,435	
Loaded covered goods	1,381	
Empty covered goods	31	
Ditto ditto	303	
Ditto ditto	314	
Ditto ditto	668	
Ditto ditto	1,323	
Ditto ditto	1,361	
Ditto ditto	415	
Ditto ditto	1,284	
Ditto ditto	428	
Ditto ditto	438	
Ditto ditto	247	
Ditto ditto	1,375	
Ditto ditto	1,326	
Ditto ditto	134	
Ditto ditto	339	
3rd class brake-van	43	
Empty covered	362	for cooly hospital.
3rd class	298	coolies.
Ditto	317	ditto.
Ditto	53	ditto.
Intermediate	284	passengers.
Composite	31	ditto.
3rd class	68	ditto.
Ditto	297	ditto.
Ditto	81	ditto.
Ditto	73	ditto.
Brake-van	143	guard.

A. K. Sen, Assistant Surgeon, Sára.—On arrival at the scene of accident at about 22 hours, I found one woman injured in a carriage with a few bruises only, no external injury, and a man laying on the bank with his head cut and a few bruises. I sent them to the hospital carriage brought by the Special to be treated. Hearing there were more in the village, I found a dead child on the west side with its parents who had brought it there, and they were asleep. I saw about 10 others with bruises, and a woman complaining she had lost a child 12 months old. I made a search with the Sára Station-master and found eight passengers about a mile off, five injured, the others only now in hospital. I went to the village on the east side and found coolies injured, lying two or three together in different houses. I met two villiage chowkidars, who said there were 60 or 70 lying about in the different houses, and requested them to come for treatment, but they mostly refused to go then. By that time the Saidpur Special had arrived, and asked the Railway Police Magistrate and others to assist in getting them in. Those who came first were sent off by Special to hospital. Those found after were sent on later after being attended to, were sent on by another Special, and four afterwards came in who were sent on to Sára by a return Special.

Altogether there were about 70 injured. The first woman I saw died about 5 A.M.—16 at Madhnagar. A man by name Koomee, Assam Company's coolie, died at 15 hours on 17th from internal injuries received. Only four cases were serious, and two more now have become serious on account of fever having set in.

Most of the injured people say there was a heavy gust of wind like a whirlwind, lifted the carriages up and blew them over.

C. Stephen.—I was Driver of 34 Down mixed of the 15th, and crossed 45 Up at Madhnagar; 45 Up left as soon as I arrived at Madhnagar. There was a breeze blowing when I left Atrai, and a heavy storm came on at mileage 34, two miles from Madhnagar, to the north of the bridge. The storm slowed the train down to four or five miles an hour. There was nothing wrong with the bridge or permanent-way when I came over it.

Edward Read.—I was Driver of 45 Up mixed of 15th; have been a Driver on this system about four years. I arrived at and left Madhnagar, right time, 16-49. On approaching the bridge, 9 spans of 20 feet at mileage 33-22, I felt some heavy gusts of wind which only slightly affected the speed of the train. I was going about 12 miles an hour before, and on the bridge it was reduced to about 10 miles an hour by the wind. I had 31 vehicles in all on the train, 9 coaching, 1 loaded wagon, 21 empties, my engine being F class 52, and its load for a mixed train 35. After my engine had passed over the bridge a few wagons' length I felt a jerk; looked back and saw some wagons near the engine falling over on to the east side of the line; my engine was brought to a stand at once before I had time to apply my brakes. I did not know at first what had caused the accident, but when I got off the engine I at once thought the vehicles must have been blown over. I felt several gusts, and could not say which particular gust did it. I first went and gave assistance to the passengers whose vehicles had fallen into the river, and then went and examined the road. I did not cross the bridge when I went back to the Guard as it was wet and slippery and windy, and an open bridge without side protection, and waded through the water which was up to my middle, 3½ feet deep. I commenced assisting the passengers and sent the Guard back about half an hour after to give the necessary notice and send for assistance. It was dusk before I examined the road and bridge, about 18 hours. I saw a few sleepers at each end of the bridge with wheel marks on, but nothing in the middle of the bridge. I saw nothing wrong with the bridge; I did not run against or over anything to cause an accident. It was 16-55 when my engine stopped. I felt

nothing wrong with the road while I was running till the time of the accident. I shut off steam and my fireman applied the tender brake after we had stopped. There were 5 wagons attached to my engine by couplings, 4 covered wagons on their sides down the bank, and one low-sided next to the engine canted over to the east.

Conclusion.

The accident must be attributed to a violent gust of wind, amounting to a tornado, which unfortunately caught the train passing over an open bridge.

The wheel and other marks on the bridge are inconsistent with a derailment caused by any obstacle on the line or defect in the rolling-stock or way and works. The position of the vehicles after the accident is shown in the accompanying sketch.

No. 43, a third class carriage, with a brake compartment, contained a brakesman and 12 passengers. No. 362, an empty covered goods, attached for use as a hospital in case of cholera. These two vehicles appear to have been lifted up clear of the bridge structure and dropped down on their wheels into about 3 feet of water which broke the shock, causing the passengers and brakesman to escape uninjured.

The other vehicles seem to have caught the ends of the sleepers or cut-waters in their descent, causing them to fall either on their sides or on their roofs. Two 3rd class carriages falling on their roofs were completely crushed by the heavy weight of their frame and wheels. These carriages must have been nearly empty, or the loss of life would have been much greater, as it would seem impossible that any one inside them could have escaped.

The witnesses all agree in the opinion that the train was blown off the bridge, but very slightly in their description of the force and duration of the storm. Fireman Hutton gives 5 seconds as the duration of the gust which caused the accident.

Lieutenant-Colonel Clarke in his note shows that to overturn an empty covered wagon, metre gauge, would require a pressure of 49·4lb.

To lift bodily, as in the case of covered wagon, No. 362, weighing 3·4 tons, a pressure of 83lb per square foot must have been exerted—

Wagon weight	3·4 tons	=	7,616lb
,, frame	14′ × 6′ 7″	,,	= 92 sq. ft.
,, ,,	$\frac{7}{92}$		= 82·78 lb per sq. ft.

The tremendous pressure in this case may perhaps be accounted for by tornado sweeping up an open space being sudddenly deflected and obstructed by the high bank and bridge structure.

The narrow track of the storm may be demonstrated by taking the centre as having struck the train at carriage No. 43, the nineteenth vehicle, exerting a force of over 82·78lb, which at the 30th vehicle had decreased below 49·4lb, the amount calculated to overturn a 3rd class carriage.

The enormous force developed, and the suddenness and uncertain track of these tornados seem to preclude any reasonable precautions being taken to prevent future accidents from this cause.

APPENDIX

Statement of the damages to the stock in the accident at Madhnagar on 15th April 1889.

No. 1435	18′	Iron covered wagon.	—Both buffers bent; right side under-frame angle iron bent.
,, 1381	,,	,,	Buffer bent; axle-guard bent; axle-boxes broken; door flashings broken.
,, 134	,,	,,	Coupling pin, four axle-boxes, brake thrust rod and one door frame broken, buffers and axle-guards bent.
,, 1323	,	,,	Flap door boards and side angle iron broken; hook buffer and door flashings bent.

No. 1361 18′ Iron covered wagon.—Brake-gear bent, partly broken; front left side plate broken; front left side corner angle iron twisted; centre angle iron bent; three axle-boxes broken; four axle-guards bent; right end corner angle iron bent; one right end centre angle iron broken; two buffers broken; end bottom gusset plates bent; front end angle iron plate bent; door flashings broken.

" 1284 Iron covered wagon.— Buffers broken; two axle-guards bent; two axle-boxes broken; brake rod and rack broken; left side under-frame angle iron bent; one right back and angle iron bent.

" 1375 " " Two buffers bent; two axle-guards bent; three axle-boxes broken; two end buffer plates bent, and one broken at corner; six angle irons on right side bent; two angle iron gusset plates broken; one right back side plate broken; one right side under-frame angle iron bent.

" 193 18′ Covered goods wagon.—Right side sole bar loose; front buffer broken; back buffer bent; cast-iron roof plates bent.

" 303 " " One buffer broken; two cast-iron roof plates bent.

" 339 " " Right top side rail broken; right sole bars and one side broken.

" 314 " " Body completely smashed, back buffer broken; front buffer bent.

" 415 " " Two buffers broken; two axle-boxes broken; sole bar broken; axle-guards bent; end and side pillars broken; two cast-iron roof plates broken.

" 361 Covered goods wagon.— Side pillars broken; three cast-iron roof plates broken.

" 668 14′ Covered wagon.— Body badly damaged.

" 428 " " Back buffer bent; cast-iron roof plates broken; two back end uprights broken.

" 438 " " Three axle-boxes broken; one buffer hook broken; one buffer hook bent; right sole bar broken; four axle-guards bent; four axle-guard bridles broken.

" 750 Low-sided wagon.— Both sole bars broken; six floor planks broken; head stock loose; two buffers bent; two side iron brackets broken; three axle-boxes broken; two corner plates broken.

" 31 24′ Iron jute wagon.— One axle-box broken; two buffers bent slightly.

The bodies of 3rd class carriages Nos. 83, 317, 53, 68, 297 and 81 are damaged beyond repair, and will have to be rebuilt. The under-frames of these carriages are practically uninjured; the buffers are all either broken or bent.

No. 284 Intermediate.— One end and side pillars broken; panel plates bent; sunshades broken.

" 31 Composite.— End panels and pillars broken; sunshades broken; cushions damaged; axle-boxes broken; and buffers bent; axle-guards bent.

Extract from a Report on the Accident which occurred at Lonâvla Station, Great Indian Peninsula Railway, at 12-40 A.M. on the 5th May 1889.

A shunting engine was working in the Lonávla Station-yard, having 15 wagons attached, and was well within the protection of the down station signal, which was set to danger. The shunting train was moving slowly towards the station signal when the driver saw the lights of an advancing train. On this train not coming to a stand outside the station signal, he reversed his engine, but too late, and the trains collided at a point 166 feet inside the signal. This signal, it was stated in the evidence, could be worked at night to show an imperfect or "magpie" light.

The damage done to the shunting engine and attached vehicles was trifling, none of them left the road. The driver and firemen remained on the shunting engine, and none of them were injured. The approaching train, an up goods, had four of the wagons derailed, two of them overturned, and four men travelling in these (in charge of sheep) were injured, one fatally. None of the train staff were injured.

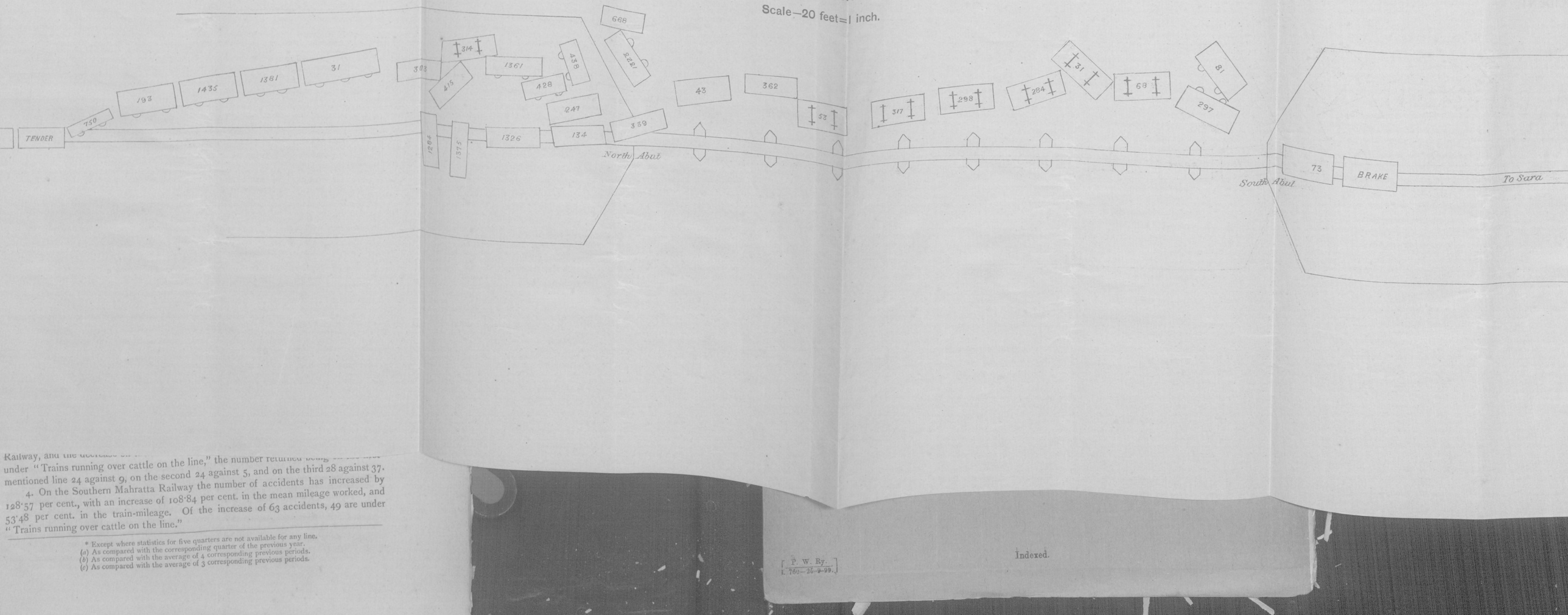
Public Works (1890) Department.

E. B. S. R., N. SECTION.

ACCIDENT TO No. 45 UP-MIXED TRAIN AT MILE 33 T-POST 22 ON APRIL 15th, 1889.

SKETCH SHOWING POSITION OF VEHICLES AFTER THE ACCIDENT.

Scale—20 feet=1 inch.



Railway, and the decrease [illegible]
under "Trains running over cattle on the line," the number returned [illegible]
mentioned line 24 against 9, on the second 24 against 5, and on the third 28 against 37.

4. On the Southern Mahratta Railway the number of accidents has increased by 128·57 per cent., with an increase of 108·84 per cent. in the mean mileage worked, and 53·48 per cent. in the train-mileage. Of the increase of 63 accidents, 49 are under "Trains running over cattle on the line."

* Except where statistics for five quarters are not available for any line.
(*a*) As compared with the corresponding quarter of the previous year.
(*b*) As compared with the average of 4 corresponding previous periods.
(*c*) As compared with the average of 3 corresponding previous periods.

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shunting train was moving slowly towards the station signal when the driver saw the lights of an advancing train. On this train not coming to a stand outside the station signal, he reversed his engine, but too late, and the trains collided at a point 166 feet inside the signal. This signal, it was stated in the evidence, could be worked at night to show an imperfect or "magpie" light.

The damage done to the shunting engine and attached vehicles was trifling, none of them left the road. The driver and firemen remained on the shunting engine, and none of them were injured. The approaching train, an up goods, had four of the wagons derailed, two of them overturned, and four men travelling in these (in charge of sheep) were injured, one fatally. None of the train staff were injured.

No. 0210 R. T.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY TRAFFIC.

Calcutta, the 10th February 1890.

Returns of Accidents on Indian Railways for the second quarter of 1889.

Read again—

Public Works Department Resolution No. 39R.T., dated 13th January 1885.
" " " " " 1155R.T., " 15th December 1885.
" " " " " 1213R.T., " 24th November 1886.
" " " " " 1531R.T., " 30th December 1887.
" " " " " 0191R.T., " 24th January 1889.
" " " " " 496R.T., " 17th September 1889.

Read also—

Docket from the Director General of Railways No. 10 (Statistical), dated the 25th January 1890, forwarding the Abstract Returns of Accidents to Trains, &c., on the open lines of Railway in India for the quarter ended 30th June 1889.

OBSERVATIONS.—As compared with the average of the five* corresponding previous quarters, the number of accidents to trains, rolling-stock, permanent-way, &c., shows an increase of 99, or 9·84 per cent., with an increase of 2,384·75 miles, or 18·68 per cent. in the mean mileage open, and of 1,105·661 miles, or 8·50 per cent. in the train-mileage. The following are the Railways on which the more important fluctuations occurred :—

Railway.	Number of accidents.	Accidents.				Train-mileage.	
		Increase.	Decrease.	Percentage of increase.	Percentage of decrease.	Percentage of increase.	Percentage of decrease.
Rajputana-Malwa	185	32	...	20·92	...	24·96	...
Bengal-Nágpur	39	16	...	69·57	...	...	10·22
Southern Mahratta	112	63	...	128·57	...	53·48	...
Indian Midland	55	(*a*)49	...	816·67	...	462·60	...
North Western	107	...	59	...	35·54	19·84	...
Oudh and Rohilkhand	37	...	11	...	22·92	13·82	...
Eastern Bengal	118	11	...	10·28	...	23·26	...
Jorhát	6	...	(*b*)19	...	76·00	12·96	...
Great Indian Peninsula	63	...	15	...	19·23	...	14·08
Dibru-Sadiya	33	(*c*)14	...	73·68	...	22·53	...
His Highness the Nizam's	34	22	...	183·33	...	56·18	...

2. The increase in the number of accidents on the Rajputana-Malwa Railway is chiefly due to the number of "Failures of axles," having been 34 against 6.

3. The increases on the Bengal-Nágpur Railway and His Highness the Nizam's Railway, and the decrease on the Oudh and Rohilkhand Railway, have mainly occurred under "Trains running over cattle on the line," the number returned being on the first-mentioned line 24 against 9, on the second 24 against 5, and on the third 28 against 37.

4. On the Southern Mahratta Railway the number of accidents has increased by 128·57 per cent., with an increase of 108·84 per cent. in the mean mileage worked, and 53·48 per cent. in the train-mileage. Of the increase of 63 accidents, 49 are under "Trains running over cattle on the line."

* Except where statistics for five quarters are not available for any line.
(*a*) As compared with the corresponding quarter of the previous year.
(*b*) As compared with the average of 4 corresponding previous periods.
(*c*) As compared with the average of 3 corresponding previous periods.

5. With an increase from 136·25 to 611 miles, or 348·44 per cent. in the mean length worked, and from 52,213 to 293,748 miles, or 462·60 per cent. in the train-mileage, the number of accidents on the Indian Midland Railway has risen from 6 to 55, or 816·67 per cent. The principal increases are 6 under "Goods trains, or parts of goods trains, engines, &c., leaving the rails," 26 under "Trains running over cattle on the line" and 8 under "Other accidents."

6. Of the decrease of 59 accidents on the North Western Railway, 22 appear under "Trains running over cattle on the line," 8 under "Failure of couplings," 15 under "Fire in trains" and 6 under "Other accidents." The number of cases of flooding of portions of permanent-way has increased from 1 to 8.

7. The principal variations on the Eastern Bengal Railway are increases of 6 accidents under "Goods trains, or parts of goods trains, engines, &c., leaving the rails," and 5 under "Broken rails," and a decrease of 5 under "Failure of machinery, springs, &c., of engines."

8. The decrease on the Jorhát Railway is principally due to the absence of any accident from "Failure of machinery, springs, &c., of engines" and "Failure of wheels," whereas the average of the four corresponding previous quarters was 7 under the former and 9 under the latter head.

9. On the Great Indian Peninsula Railway there is a decrease of 9 accidents under "Trains running over cattle on the line" and 14 under "Fire in trains."

10. With the exception of an increase of 7 accidents under "Failure of couplings" on the Dibru-Sadiya Railway, no other heads show any noticeable fluctuation.

11. The casualties resulting from accidents to trains, &c., were, among passengers and others, 11 killed and 89 injured, against 1 killed and 11 injured, and among servants, 2 killed and 9 injured, against 3 killed and 13 injured.

12. Of the casualties to passengers, 7 were killed and 80 injured by an accident to an Up mixed train on the Northern Section of the Eastern Bengal State Railway on the 15th April 1889. This train, while crossing a bridge at mile 33, telegraph post 22, just after leaving Madhnagar Station, was blown over by a tornado, 10 passenger vehicles and 19 goods vehicles being thrown down into the bed of the river, or down the abutment. A detailed report of this accident is appended.

13. On the Great Indian Peninsula Railway a serious collision took place between an Up goods train and an engine which was shunting at Lonávla. A man who was travelling in a covered goods wagon in charge of sheep was killed, three other men, who were also in charge of the sheep, were more or less injured. An extract from the report on this accident is also appended.

14. The following table exhibits the number of accidents under the different classes, due to accidents to trains, rolling-stock, permanent-way, &c., and the number of persons killed and injured thereby, *vide* Tables Nos. 3 and 4:—

Serial No.	Causes of Accidents.	Average of corresponding quarters of five previous years.*	SECOND QUARTER, 1889.					TOTAL ALL CLASSES.	
			Number.	Number of passengers and others.		Number of servants.			
				Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1	Collisions between passenger trains or parts of passenger trains	1	1	...	...	...	...	...	...
2	Collisions between passenger trains and goods, or mineral trains, engines and vehicles standing foul of the line	14	13	...	2	...	3	...	5
3	Collisions between goods trains or parts of goods trains	22	23	2	4	...	1	2	5
	Carried over	37	37	2	6	...	4	2	10

* Except where statistics for five quarters are not available for any line.

Serial No.	Causes of Accidents.	Average of corresponding quarters of five previous years.*	SECOND QUARTER, 1889.					TOTAL ALL CLASSES.	
			Number.	Number of passengers and others.		Number of servants.			
				Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
	Brought forward	37	37	2	6	...	4	2	10
4	Collisions between light engines	2	4	...	...	...	...	...	...
5	Passenger trains or parts of passenger trains leaving the rails	23	16	7	80	...	1	7	81
6	Goods trains or parts of goods trains, engines, &c., leaving the rails	80	96	...	...	...	...	...	...
7	Trains or engines travelling in the wrong direction through points	13	15	...	...	...	...	...	...
8	Trains running into stations or sidings at too high a speed	3	3	...	...	...	...	...	...
9	Trains running over cattle on the line	484	561	...	...	...	...	...	...
10	" " over obstructions on the line	26	32	1	2	1	1	2	3
11	" " through gates at level crossings	15	11	...	...	...	...	...	...
12	The bursting of boilers of engines	...	...	...	...	...	...	...	...
12(a)	" " of tubes, &c., of engines	17	24	...	...	...	...	...	...
13	The failure of machinery, springs, &c., of engines	55	60	...	...	...	...	...	...
14	The failure of tyres	2	2	...	...	...	...	...	...
15	" wheels	9	...	...	...	...	...	...	...
16	" axles	12	39	...	...	...	1	...	1
17	" brake apparatus	...	...	...	...	...	...	...	...
18	" couplings	35	35	...	...	...	...	...	...
19	" tunnels, bridges, viaducts, culverts, &c.	...	1	...	...	...	...	...	...
20	Broken rails	4	11	...	...	...	...	...	...
21	The flooding of portions of permanent-way	9	18	...	...	...	...	...	...
22	Slips in cuttings or embankments	6	1	...	...	...	...	...	...
23	Fire in trains	90	46	...	...	...	...	...	...
24	Fire at stations, or involving injury to bridges or viaducts	14	15	...	...	1	...	1	...
25	Other accidents	70	78	1	1	...	2	1	3
	1889	...	1,105	11	89	2	9	13	98
	Total—Average of corresponding quarters of five previous years*	...	1,006	1	11	3	13	4	24

15. The principal variations occurred under "Goods trains, or parts of goods trains, engines, &c., leaving the rails," 96 against 80; "Trains running over cattle on the line," 561 against 484; "Failure of axles," 39 against 12; "Flooding of portions of permanent-way," 18 against 9; and "Fire in trains," 46 against 90.

16. The largest increase under "Goods trains, or parts of goods trains, engines, &c., leaving the rails," appears on the Indian Midland and Eastern Bengal Railways, *viz.*, 6 on each.

17. The cattle accidents were very numerous on the Rajputana-Malwa, Southern Mahratta, and Eastern Bengal Railways, being 94, 83 and 70, respectively. Next to these stand the East Indian and South Indian Railways, which have returned 32 accidents each. On the Rajputana-Malwa and Southern Mahratta Railways most of the accidents are reported to have occurred on the unfenced portions of the line.

18. Of the 39 cases of "Failure of axles," 34 are recorded on the Rajputana-Malwa Railway alone.

19. Of the 18 cases of flooding of portions of permanent-way, 8 were on the North Western Railway and 4 on the Great Indian Peninsula Railway.

20. The decrease of 44 accidents under "Fire in trains" is mainly due to the number of cases having fallen from 33 to 18 on the North Western Railway, from 15 to 6 on the Madras Railway, and from 20 to 6 on the Great Indian Peninsula Railway.

* Except where statistics for five quarters are not available for any line.

21. On the North Western Railway, there were 10 cases of "The bursting of tubes, &c., of engines" out of a total of 24, and 17 cases of "Failure of machinery, springs, &c., of engines" out of a total of 60; and on the Dibru-Sadiya Railway, 13 cases of "Failure of couplings" out of a total of 35.

22. The casualties to passengers from causes other than accidents to trains, &c., *vide* Table No. 2, were—

Causes of accidents.	Second quarter, 1889.		Average of corresponding quarters of five previous years.*	
	Killed.	Injured.	Killed.	Injured.
1. From falling between carriages and platforms	...	3	2	1
2. Falling on to the platform, ballast, &c., when getting into or out of trains	1	5	1	2
3. Whilst crossing the line at stations	2	...	...	...
4. By closing of carriage doors	...	1	...	1
5. Falling out of carriages during the travelling of trains	5	30	3	18
6. Other accidents	1	7	1	6
Total	9	46	7	28

23. The accidents to servants in the employ of Railways, or of contractors, whilst performing duties connected directly with the transit of passengers and goods, from causes other than accidents to trains, &c., were as follows, *vide* Table No. 2:—

Causes of accidents.	Second quarter, 1889.		Average of corresponding quarters of five previous years.*	
	Killed.	Injured.	Killed.	Injured.
1. During shunting operations	4	14	5	12
2. Falling off engines, vans, wagons, &c.	3	13	3	14
3. Coming in contact with over-bridges, &c., during the travelling of trains	1	...	...	1
4. Coming in contact, while shunting, with vehicles, &c., standing in adjoining lines	...	...	...	...
5. Getting on or off trains, engines, &c.	5	14	3	13
6. Whilst loading, unloading or sheeting	...	15	3	16
7. Whilst breaking, spragging, or choking wheels	...	1	...	2
8. Whilst working at cranes or capstans	...	3	...	2
9. Whilst working on the permanent-way or in sidings	2	11	1	5
10. Whilst walking along the line on the way home, or to work	4	6	1	1
11. Whilst walking, crossing, or standing on the line	9	5	10	7
12. Whilst passing between vehicles	1	4	1	2
13. Whilst attending to the machinery of engines, cleaning them, &c.	1	2	...	4
14. Whilst attending to gates at level-crossings	2	1	2	1
15. Falling, or being caught between vehicles and platforms	2	2	1	2
16. Falling off ladders, scaffolds, platforms, &c.	...	5	...	4
17. By falling of lamps, wagon doors, timber, weights, &c.	...	6	...	5
18. Whilst coupling or uncoupling wagons	2	8	2	8
19. Miscellaneous	6	53	5	33
Total	42	163	37	132

24. Of other persons killed and injured by running trains, &c., 5 were killed and 2 injured whilst passing over the line at level-crossings; 50 were killed and 19 injured whilst trespassing on the line; 27 committed suicide, and 3 were injured in attempting to commit suicide; and 6 were killed and 5 injured from miscellaneous causes.

* Except where statistics for five quarters are not available for any line.

25. The following table exhibits the total number of persons killed and injured from all causes over the whole Indian Railway system, as compared with the average of the corresponding quarters of five previous years, *vide* Table No. 1:—

Causes of accidents.	Second quarter, 1889.		Average of corresponding quarters of five previous years.*	
	Killed.	Injured.	Killed.	Injured.
Passengers.				
From causes beyond their own control	9	90	1	10
From misconduct or want of caution	9	44	7	26
Servants.				
From causes beyond their own control	6	22	5	22
From misconduct or want of caution	38	150	36	124
Others.				
Whilst passing at level-crossings	5	2	1	2
Trespassers, including suicides	77	22	53	12
Other persons	6	5	3	5
Total	150	335	106	201
Total open mileage	15,151¼		12,766½	
Total train-mileage	14,115,595		13,009,934	

* Except where statistics for five quarters are not available for any line.

26. In addition to the above, 16 persons are reported to have been killed and 45 injured in yards, workshops, &c., and 184 persons to have died in carriages and at stations from causes unconnected with the working of trains.

27. A tabulated statement has been added to the returns, comparing the accidents on Indian Railways with those on English Railways for the year 1888. The number of accidents per 1,000,000 train-miles on the Indian Railways was 64·90 against 5·64 on the English Railways, and the number of passengers killed and injured per million of passengers 0·03 and 0·27 against 0·01 and 0·80, respectively.

RESOLUTION.—The decrease in the number of "Fires in Trains" is satisfactory, the number having fallen from a quarterly average of 90 to 46 during the quarter under review. This was chiefly due to decreases in this class of accident on the North Western Railway, the Madras Railway, and the Great Indian Peninsula Railway.

2. On the Rajputana-Malwa Railway the large number of "Failures of Axles" is again noticed, being 34 out of a total, on all Indian Railways, of 39 "Failures of Axles" during the quarter.

ORDER.—Ordered, that this Resolution be communicated, for information, to the Local Governments, Administrations, and Officers noted in the margin.

Ordered also, that copies be forwarded for the information of Her Majesty's Government.

Ordered further, that this Resolution, with the Abstract Returns, be published in the Supplement to the *Gazette of India*.

Major, R.E.,
Under Secretary.

The Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh, and the Punjab.
The Chief Commissioners of the Central Provinces, Burma, and Assam.
The Resident at Hyderabad.
The Agents to the Governor General for Central India, Rajputana, and Baluchistan.
The Director General of Railways.
The Consulting Engineers to the Government of India for Railways, Calcutta, Lucknow, and Central Division.

Document accompanying.
Abstract Returns of Accidents for the second quarter of 1889.

Government of India Central Printing Office.—No. 130 D. G. R.—13-2-90—800.

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

PW.Civ.2360

B. No. 405 R dy 21st March 1890.

Communicated

to the Consulting Engineer for Railways for information with reference to his Endorsement Nos. 294 and 330, dated 20th July and 29th August 1889.

C.J.S.
10. 3. 90

R.

B

No. 405 R dy 21st March/90.

Sd.
Secretary

Sd. 7-3-90.
Encl. (40 secy Encl 1)

No. 831 R dy 6-8-89
- 971-LR - 5-7-89

Sd.

Consulting Engr. for Railways.

Recd 13.3. Dd 13.3.

H.m. 10-3-90 R 13-3-90

Rec'd 15-5. Pkd from Veh.