

Public Works (1893) Department.

RAILWAY BRANCH.

G.O., No. 1124 R

DATED 23rd August

[Despatch Abstract.]

Return of accidents on Indian Railways. — Resolution of the Govt of India on the — for twelve months ending 31st December 1892, Communicated to the agents, Madras and South Indian Railways.

BACK PAPERS.

[illegible]

FURTHER PAPERS.

G.O.	No.	Department.	Date.

G.O.	No.	Department.	Date.

Enclosure to P. W. D. No. 300R. Stat., dated the 3rd August 1893.

INDIAN RAILWAYS.

ABSTRACT RETURNS OF ACCIDENTS DURING THE TWELVE MONTHS ENDING 31st DECEMBER 1892.

O I. C. P. O.,-No. 10 D. G. B.,-7442-007.

ABSTRACT No. 1.

GENERAL TOTAL.

NUMBER of PERSONS reported, during the TWELVE MONTHS ending 31st December 1892, as KILLED or INJURED ON ALL 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 caused by ACCIDENTS to TRAINS, ROLLING-STOCK, PERMANENT-WAY, etc., and ACCIDENTS happening otherwise.

	Killed.	Injured.	Remarks.
PASSENGERS:—			
From accidents to trains, rolling-stock, permanent-way, etc.	8	42	
By accidents from other causes, including accidents from their own want of caution or misconduct	55	139	
SERVANTS:—			
From accidents to trains, rolling-stock, permanent-way, etc.	19	49	
By accidents from other causes, including accidents from their own want of caution or misconduct	193	599	
OTHER PERSONS:—			
Whilst passing over railways at level-crossings	24	15	
Trespassers	263	81	
Suicides	53	4	
Miscellaneous, not included in either of the above	9	12	
TOTAL.	624	930	

ABSTRACT

NUMBER of PERSONS reported, during the TWELVE MONTHS ending 31st December 1892, as KILLED or INJURED in ~~India~~ by the RAILWAY SERVANTS, and OTHER PERSONS, and classifying, as far as practicable,

[illegible]

(a) include the Irti-Umbla-Kaika and Jammuair railways,
(b) " the Bhagalpur railway,
(c) " the Amritsar-Patankot, Jyfarala-Umarkot, Jammu-Bhatinda, and Jammu and Kashmir railways,
(d) " narrow gauge sections and the Muzil Central railway,
(e) " the Wardha-Coal, Ubood-Mahamad, Bhavnagar and Amroli railways.

No. 2.

No. 2. TRAVELLING of TRAINS or the MOVEMENT of VEHICLES used exclusively upon RAILWAYS, distinguishing between PASSENGERS, the nature and causes of the ACCIDENTS occasioning the DEATH or INJURY.

[illegible]

(f) Includes the Gachwar's Petlad railway.
 (g) " the Masvada section.
 (h) " the Gachwar's Mahana railway.
 (i) " the Mysore section and the Kothhar railway.
 (j) " the Mulbilwad and Kemana (L. K. New-Barrilly section).

ABSTRACT No. 3.

ACCIDENTS TO TRAINS, ROLLING-STOCK, PERMANENT-WAY, ETC., reported during the TWELVE MONTHS ending 31st December 1932, 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.

	I. Fatalities (a)				II. Injuries (b)				III. Other Accidents (c)				IV. Total (d)			
	No.	Number of passengers and others	Total all classes	No.	Number of passengers and others	Total all classes	No.	Number of passengers and others	Total all classes	No.	Number of passengers and others	Total all classes	No.	Number of passengers and others	Total all classes	No.
1. Collisions between passenger trains or parts of passenger trains	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	6	6	6	3	3	3	3	3	3	3	3	3	3	3	3	3
3. Collisions between goods trains or parts of goods trains	4	7 11	15	1	7 9	16	1	7 9	16	1	7 9	16	1	7 9	16	1
4. Collisions between light engines	2	16 16	32	1	16 16	32	1	16 16	32	1	16 16	32	1	16 16	32	1
5. Passenger trains or parts of passenger trains leaving the rails	11	16 25	41	4	16 25	41	4	16 25	41	4	16 25	41	4	16 25	41	4
6. Goods trains or parts of goods trains, engines, etc., leaving the rails	1	59 104	163	23 23	59 104	163	23 23	59 104	163	23 23	59 104	163	23 23	59 104	163	23 23
7. Trains or engines travelling in the wrong direction through points	22 22	22 22	44	7 9	22 22	44	7 9	22 22	44	7 9	22 22	44	7 9	22 22	44	7 9
8. Trains running into stations or sidings at too high a speed	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9. Trains running over cattle on the line	11 11	11 11	22	4 5	11 11	22	4 5	11 11	22	4 5	11 11	22	4 5	11 11	22	4 5
10. Ditto over obstructions on the line	10 10	10 10	20	2 2	10 10	20	2 2	10 10	20	2 2	10 10	20	2 2	10 10	20	2 2
11. Ditto through gates at level crossings	6 6	6 6	12	1 1	6 6	12	1 1	6 6	12	1 1	6 6	12	1 1	6 6	12	1 1
12. The bursting of boilers of engines	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
12(a). The bursting of tubes, etc., of engines	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
13. The failure of machinery, springs, etc., of engines	7 7	7 7	14	3 3	7 7	14	3 3	7 7	14	3 3	7 7	14	3 3	7 7	14	3 3
14. The failure of tyres	3 3	3 3	6	2 2	3 3	6	2 2	3 3	6	2 2	3 3	6	2 2	3 3	6	2 2
15. Ditto of wheels	3 3	3 3	6	2 2	3 3	6	2 2	3 3	6	2 2	3 3	6	2 2	3 3	6	2 2
16. Ditto of axle	3 3	3 3	6	2 2	3 3	6	2 2	3 3	6	2 2	3 3	6	2 2	3 3	6	2 2
17. Ditto of brake apparatus	13 13	13 13	26	5 5	13 13	26	5 5	13 13	26	5 5	13 13	26	5 5	13 13	26	5 5
18. Ditto of couplings	13 13	13 13	26	5 5	13 13	26	5 5	13 13	26	5 5	13 13	26	5 5	13 13	26	5 5
19. Ditto of tunnels, bridges, viaducts, culverts, etc.	7 7	7 7	14	2 2	7 7	14	2 2	7 7	14	2 2	7 7	14	2 2	7 7	14	2 2
20. Broken rails	7 7	7 7	14	2 2	7 7	14	2 2	7 7	14	2 2	7 7	14	2 2	7 7	14	2 2
21. The flooding of portions of permanent-way	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
22. Slip in cuttings or embankments	6 6	6 6	12	2 2	6 6	12	2 2	6 6	12	2 2	6 6	12	2 2	6 6	12	2 2
23. Fire in trains	5 5	5 5	10	2 2	5 5	10	2 2	5 5	10	2 2	5 5	10	2 2	5 5	10	2 2
24. Fire at stations, or involving injury to bridges or viaducts	7 7	7 7	14	2 2	7 7	14	2 2	7 7	14	2 2	7 7	14	2 2	7 7	14	2 2
25. Other accidents	31 31	31 31	62	14 14	31 31	62	14 14	31 31	62	14 14	31 31	62	14 14	31 31	62	14 14
TOTAL ALL CLASSES	31 31	31 31	62	14 14	31 31	62	14 14	31 31	62	14 14	31 31	62	14 14	31 31	62	14 14

(a) Includes the Delhi-Umber-Kaithi and Tehriwal railways.

(b) Includes the Bombay-Pune and Hyderabad railways.

(c) Includes the Amritsar-Patna, Bikaner-Mumbai, Bikaner-Madras, and Jaipur and Kanpur railways.

ABSTRACT No. 3.—ACCIDENTS TO TRAINS, ROLLING-STOCK, PERMANENT-WAY, ETC., reported during the TWELVE MONTHS ending 31st December 1932, 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—contd.

	V. Fatalities (a)				VI. Injuries (b)				VII. Other Accidents (c)				VIII. Total (d)			
	No.	Number of passengers and others	Total all classes	No.	Number of passengers and others	Total all classes	No.	Number of passengers and others	Total all classes	No.	Number of passengers and others	Total all classes	No.	Number of passengers and others	Total all classes	No.
1. Collisions between passenger trains or parts of passenger trains	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	4 6 10	4 6 10	20	1 1	4 6 10	20	1 1	4 6 10	20	1 1	4 6 10	20	1 1	4 6 10	20	1 1
3. Collisions between goods trains or parts of goods trains	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
4. Collisions between light engines	2 5 7	2 5 7	14	1 1	2 5 7	14	1 1	2 5 7	14	1 1	2 5 7	14	1 1	2 5 7	14	1 1
5. Passenger trains or parts of passenger trains leaving the rails	10 10	10 10	20	1 1	10 10	20	1 1	10 10	20	1 1	10 10	20	1 1	10 10	20	1 1
6. Goods trains or parts of goods trains, engines, etc., leaving the rails	6 6	6 6	12	1 1	6 6	12	1 1	6 6	12	1 1	6 6	12	1 1	6 6	12	1 1
7. Trains or engines travelling in the wrong direction through points	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
8. Trains running into stations or sidings at too high a speed	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
9. Trains running over cattle on the line	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
10. Ditto over obstructions on the line	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
11. Ditto through gates at level-crossings	2 2	2 2	4	1 1	2 2	4	1 1	2 2	4	1 1	2 2	4	1 1	2 2	4	1 1
12. The bursting of boilers of engines	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
12(a). Ditto of tubes, etc., of engines	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
13. The failure of machinery, springs, etc., of engines	25 25	25 25	50	1 1	25 25	50	1 1	25 25	50	1 1	25 25	50	1 1	25 25	50	1 1
14. The failure of tyres	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
15. Ditto of wheels	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
16. Ditto of axle	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
17. Ditto of brake apparatus	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
18. Ditto of couplings	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
19. Ditto of tunnels, bridges, viaducts, culverts, etc.	6 6	6 6	12	1 1	6 6	12	1 1	6 6	12	1 1	6 6	12	1 1	6 6	12	1 1
20. Broken rails	7 7	7 7	14	2 2	7 7	14	2 2	7 7	14	2 2	7 7	14	2 2	7 7	14	2 2
21. The flooding of portions of permanent-way	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
22. Slip in cuttings or embankments	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1	1 1	2	1 1
23. Fire in trains	12 12	12 12	24	3 3	12 12	24	3 3	12 12	24	3 3	12 12	24	3 3	12 12	24	3 3
24. Fire at stations, or involving injury to bridges or viaducts	3 3	3 3	6	1 1	3 3	6	1 1	3 3	6	1 1	3 3	6	1 1	3 3	6	1 1
25. Other accidents	29 29	29 29	58	7 7	29 29	58	7 7	29 29	58	7 7	29 29	58	7 7	29 29	58	7 7
TOTAL ALL CLASSES	29 29	29 29	58	7 7	29 29	58	7 7	29 29	58	7 7	29 29	58	7 7	29 29	58	7 7

(a) Includes the narrow gauge sections and the Special Central railways.
(b) Includes the Wards Road, Liberal-Madras, Bangalore and Amritsar railways.
(c) Not a passenger.

(d) Includes the Gokarna-Patna railways.

(e) Includes the Madras railways.

ABSTRACT No. 3.—Accidents to Trains, Rolling-stock, Permanent-way, etc., reported during the twelve months ending 31st December 1892, as having occurred on the several railways open for traffic on that date, and showing the different classes of accidents and the number of passengers and others, and of railway servants killed or injured in each class of accident—*contd.*

	XVII Passenger.			XVIII Goods and Railway Company's service.			XIX Inter-city.			XX Government under section 83 of the Indian Railways Act No. IX of 1900.			XXI Accidents reported to Local Government under section 83 of the Indian Railways Act No. IX of 1900.			XXII Total.		
	No.	Number of persons injured and others.	Total all classes.	No.	Number of persons injured and others.	Total all classes.	No.	Number of persons injured and others.	Total all classes.	No.	Number of persons injured and others.	Total all classes.	No.	Number of persons injured and others.	Total all classes.	No.	Number of persons injured and others.	Total all classes.
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, etc., 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. 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, etc., of engines.																		
13. The failure of machinery, springs, etc., of engines.																		
14. The failure 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, etc.																		
20. Broken rails.																		
21. The breaking 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.																		

(c) (1) There are no other persons.

(a) Includes the Glasgow's Aberdeen railway.

(c) Include the Lehigh and Lehigh-Macon (Lehigh-Macon section).

20) Include the Rehill and Kramon (Lachow-Bareilly sections).

No.	Description of accident.	January (1893).		December (1892).		Total.		Total all classes.	
		No.	Number of persons killed or injured.	No.	Number of persons killed or injured.	No.	Number of persons killed or injured.	No.	Number of persons killed or injured.
1.	Collisions between passenger trains or parts of passenger trains.	1	1	1	1	2	2	2	2
2.	Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line.	1	1	1	1	2	2	2	2
3.	Collisions between goods trains or parts of goods trains.	1	1	1	1	2	2	2	2
4.	Collisions between light engines.	1	1	1	1	2	2	2	2
5.	Passenger trains or parts of passenger trains leaving the rails.	1	1	1	1	2	2	2	2
6.	Goods trains or parts of goods trains, engines, etc., leaving the rails.	1	1	1	1	2	2	2	2
7.	Trains or engines travelling in the wrong direction through points.	1	1	1	1	2	2	2	2
8.	Trains running into stations or sidings at too high a speed.	1	1	1	1	2	2	2	2
9.	Trains running over cattle on the line.	1	1	1	1	2	2	2	2
10.	Ditto over obstructions on the line.	1	1	1	1	2	2	2	2
11.	Ditto through gates at level-crossings.	1	1	1	1	2	2	2	2
12.	The bursting of boilers of engines.	1	1	1	1	2	2	2	2
12(a).	The bursting of tubes, etc., of engines.	1	1	1	1	2	2	2	2
13.	The failure of machinery, springs, etc., of engines.	1	1	1	1	2	2	2	2
14.	The failure of tyres.	1	1	1	1	2	2	2	2
15.	Ditto of wheels.	1	1	1	1	2	2	2	2
16.	Ditto of axles.	1	1	1	1	2	2	2	2
17.	Ditto of brake apparatus.	1	1	1	1	2	2	2	2
18.	Ditto of couplings.	1	1	1	1	2	2	2	2
19.	Ditto of tunnels, bridges, viaducts, culverts, etc.	1	1	1	1	2	2	2	2
20.	Broken rails.	1	1	1	1	2	2	2	2
21.	The flooding of portions of permanent-way.	1	1	1	1	2	2	2	2
22.	Slips in cuttings or embankments.	1	1	1	1	2	2	2	2
23.	Fire in trains.	1	1	1	1	2	2	2	2
24.	Fire at stations, or involving injury to bridges or viaducts.	1	1	1	1	2	2	2	2
25.	Other accidents.	1	1	1	1	2	2	2	2
TOTAL ALL CLASSES.		20	20	20	20	40	40	40	40

Abstract No. 4. ACCIDENTS TO TRAINS, ROLLING STOCK, PERMANENT-WAY, ETC., on the several RAILWAYS open for TRAFFIC in INDIA, reported during the TWELVE MONTHS ending 31st December 1892, 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.

No.	Description of accident.	Total.	NUMBER OF PASSENGERS AND OTHERS.		NUMBER OF RAILWAY SERVANTS.		TOTAL ALL CLASSES.	
			Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1.	Collisions between passenger trains or parts of passenger trains.	4	2	0	3	...	3	...
2.	Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line.	21	30	51	...	14	5	4
3.	Collisions between goods trains or parts of goods trains.	11	66	77	...	...	12	...
4.	Collisions between light engines.	4	35	42	...	...	2	...
5.	Passenger trains or parts of passenger trains leaving the rails.	30	68	98	1	2	1	3
6.	Goods trains or parts of goods trains, engines, etc., leaving the rails.	18	394	402	...	1	3	1
7.	Trains or engines travelling in the wrong direction through points.	6	73	79	...	2	8	2
8.	Trains running into stations or sidings at too high a speed.	...	4	4	...	...	...	...
9.	Trains running over cattle on the line.	6	1,818	1,824	1(a)	1(a)	8	10
10.	Ditto over obstructions on the line.	4	114	118	1(a)	2(a)	1	2
11.	Ditto through gates at level-crossings.	3	54	57	...	1	2	1
12.	The bursting of boilers of engines.	...	...	...	...	...	...	...
12(a).	The bursting of tubes, etc., of engines.	...	103	103	...	...	...	...
13.	The failure of machinery, springs, etc., of engines.	1	461	462	...	...	...	...
14.	The failure of tyres.	1	14	15	...	...	...	...
15.	Ditto of wheels.	...	4	4	...	...	...	...
16.	Ditto of axles.	6	46	52	...	...	...	...
17.	Ditto of brake apparatus.	1	6	7	...	14	...	...
18.	Ditto of couplings.	2	209	210	...	...	...	...
19.	Ditto of tunnels, bridges, viaducts, culverts, etc.	10	2	12	...	...	...	...
20.	Broken rails.	...	75	75	...	...	...	...
21.	The flooding of portions of permanent-way.	40	86	126	...	1	...	...
22.	Slips in cuttings or embankments.	11	14	27	3	2	1	3
23.	Fire in trains.	3	160	163	1	6	...	...
24.	Fire at stations, or involving injury to bridges or viaducts.	...	43	43	...	...	...	...
25.	Other accidents.	10	211	221	...	...	3	...
TOTAL ALL CLASSES.		192	4,086	4,278	10(b)	45(c)	19	48

Mean mileage worked	17,625.72
Number of servants employed	174,313
Train-mileage of all descriptions	60,505,076
Number of passengers carried	127,230,914
Passenger-mileage	5,265,729,149
Per mile open—	
Train-mileage of all descriptions	3,433
Number of passengers carried	7,218
Passenger-mileage	298,753
Total passengers—	
Killed per million of passengers	0.063
Injured per ditto ditto	0.330
Killed per million of passenger-miles	0.001
Injured per ditto ditto	0.003

(a) Not passengers.

(b) Of these, two were not passengers.

(c) Of these, three were not passengers.

ABSTRACT No. 5.

PROPORTION OF PASSENGERS KILLED and INJURED on the SEVERAL RAILWAYS open for TRAFFIC in INDIA from causes beyond their own control in passenger-journeys for the years 1882 to 1892.

Year.	NUMBER OF PASSENGERS KILLED AND INJURED FROM CAUSES BEYOND THEIR OWN CONTROL, FROM ACCIDENTS TO TRAINS.		Number of Passenger-journeys (inclusive of journeys by season ticket holders.)	PROPORTION RETURNED AS KILLED AND INJURED (FROM CAUSES BEYOND THEIR OWN CONTROL) TO NUMBER CARRIED.	
	Killed.	Injured.		Killed.	Injured.
1882	15	41	68,875,919	1 in 3,925,061	1 in 1,435,094
1883	2	46	65,094,933	1 in 32,549,476	1 in 1,415,195
1884	11	50	73,815,119	1 in 6,710,465	1 in 1,476,302
1885	4	33	80,864,779	1 in 20,216,194	1 in 2,450,447
1886	3	43	89,436,318	1 in 29,474,773	1 in 2,056,659
1887	4	62	95,411,779	1 in 23,852,945	1 in 1,538,900
1888	2	26	103,156,013	1 in 51,578,006	1 in 3,967,539
1889	27	155	110,402,363	1 in 4,088,977	1 in 712,273
1890	1	24	113,829,810	1 in 113,828,810	1 in 4,743,700
1891	56	135	122,611,345	1 in 2,189,488	1 in 908,232
1892	8	42	127,230,914	1 in 15,903,864	1 in 3,029,307

ABSTRACT No. 6.

STATEMENT showing the NUMBER of enquiries into TRAIN ACCIDENTS on the SEVERAL RAILWAYS open for TRAFFIC in INDIA, classified under certain heads for the year 1892, as compared with two previous years.

Class of accident.	1890.	1891.	1892.
A.—From engines or vehicles meeting with obstructions, or leaving the rails in consequence of obstructions, or from defects in connection with the permanent-way or works	53	77	23
B.—From boiler explosions, failures of axles, wheels, or tyres, or from other defects in the rolling-stock	47	99	58
C.—From trains entering stations at too great speed	...	...	...
D.—From collisions between engines and trains following one another on the same line of rails, excepting at junctions, stations, or sidings	6	4	...
E.—From collisions at junctions	...	7	3
F.—From collisions within fixed signals at stations or sidings	23	16	10
G.—From collisions between engines or trains meeting in opposite directions	6	17	19
H.—From collisions at level-crossings of two railways	...	...	...
I.—From engines or trains being wrongly run or turned into sidings, or otherwise through facing points	18	16	21
J.—On inclines	...	...	...
K.—From trains on fire	1	5	1
L.—Miscellaneous	16	21	7
Total	170	262	142

P. W. Dept. By: Branch
Prop: of the Madras Government
Read the following:-

No. 300 R. Stat.
GOVERNMENT OF INDIA.
PUBLIC WORKS DEPARTMENT.
RAILWAY STATISTICS.

Simla, the 3rd August 1893.

Returns of accidents on Indian railways for the twelve months
ending the 31st December 1892.

Read again—

Public Works Department Resolution No. 402 R. Stat., dated the 31st August 1892.

Read also—

Note by the Director General of Railways, No. 331 Statistics, dated the 26th July 1893, with abstract returns of accidents to trains, etc., on the open lines of railways in India for the twelve months ending the 31st December 1892.

OBSERVATIONS.—The following summary gives the total number of accidents to trains, rolling-stock, permanent-way, &c., for the twelve months ending the 31st December 1892, distributed under the classification adopted in abstract No. 4 of the returns:

Serial No.	CLASSES OF ACCIDENTS.	TWELVE MONTHS ENDING THE 31st DECEMBER 1892.									
		NUMBER OF ACCIDENTS DURING THE YEAR 1891.			NUMBER.			NUMBER OF PASSENGERS AND OTHERS.		NUMBER OF SERVANTS.	
		Accidents reported to Local Governments under section 83 of the Indian Railways Act (IX of 1890).	Other accidents.	Total.	Accidents reported to Local Governments under section 83 of the Indian Railways Act (IX of 1890).	Other accidents.	Total.	Killed.	Injured.	Killed.	Injured.
1	Collisions between passenger trains or parts of passenger trains ...	6	10	16	4	2	6	3	...	...	...
2	Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line ...	22	35	57	21	30	51	...	18	5	4
3	Collisions between goods trains or parts of goods trains ...	14	95	109	11	66	77	...	...	...	12
4	Collisions between light engines ...	1	20	21	4	38	42	...	...	...	2
5	Passenger trains or parts of passenger trains leaving the rails ...	25	72	97	30	63	93	1	2	...	1
6	Goods trains or parts of goods trains, engines, &c., leaving the rails ...	25	297	322	18	384	402	...	...	1	3
7	Trains or engines travelling in the wrong direction through points ...	4	53	57	6	73	79	...	...	2	8
8	Trains running into stations or sidings at too high a speed ...	...	5	5	...	4	4	...	...	...	...
9	Trains running over cattle on the line ...	6	1,831	1,837	6	1,814	1,820	(a) 1	(a) 1	...	10
10	Trains running over obstructions on the line ...	12	131	133	4	114	118	(a) 1	(a) 2	1	2
11	Trains running through gates at level-crossings ...	2	50	52	3	54	57	...	...	1	2
12	The bursting of boilers of engines ...	...	1	1	...	...	...	...	...	...	...
12 (a)	The bursting of tubes, &c., of engines ...	...	138	138	...	103	103	...	...	...	...
13	The failure of machinery, springs, &c., of engines ...	...	427	427	1	461	462	...	...	...	...
14	The failure of tyres ...	1	12	13	1	14	15	...	...	...	...
15	" " of wheels ...	...	6	6	...	4	4	...	...	...	...
16	" " of axles ...	3	54	57	6	46	52	...	...	...	...
17	" " of brake apparatus ...	...	3	3	1	6	7	...	14	...	...
18	" " of couplings ...	2	180	182	2	208	210	...	...	...	...
19	" " of tunnels, bridges, viaducts, culverts, &c. ...	...	5	5	10	2	12	...	...	...	...
20	Broken rails ...	...	50	50	...	75	75	...	...	...	...
21	The flooding of portions of permanent-way ...	16	34	50	40	86	126	...	...	1	...
22	Slips in cuttings or embankments ...	8	74	82	11	16	27	...	...	...	1
23	Fire in trains ...	5	163	168	3	160	163	1	6	...	...
24	Fire at stations, or involving injury to bridges or viaducts ...	3	69	72	...	43	43	...	...	...	...
25	Other accidents ...	10	247	257	10	211	221	...	...	...	...
TOTAL FOR THE TWELVE MONTHS ENDING THE 31st DECEMBER 1892		...	...	...	192	4,086	4,278	(b) 10	(c) 45	19	48
Total for the year 1891*		...	...	...	165	4,125	4,290	(d) 65	(e) 146	27	94

(a) Not passengers.

(b) Of these two were not passengers.

(c) Of these three were not passengers.

(d) Of these nine were not passengers.

(e) Of these eleven were not passengers.

* Excludes the figures for the Cherra-Comanyganj and Thadon-Duyinzhik railways, which are now treated as steam tramways.

2. As compared with 1891, the number of accidents to trains, rolling-stock, permanent-way, &c., during the year 1892, shows a decrease of 12 or of 0.28 per cent., with an increase of 655.09 miles or of 3.86 per cent. in the mean mileage worked, and a decrease of 131,079 miles or of 0.22 per cent. in the train-mileage run.

3. The chief variations occurred under "Collisions between goods trains or parts of goods trains," 77 against 109; "Collisions between light engines," 42 against 21; "Goods trains or parts of goods trains, engines, &c., leaving the rails," 402 against 322; "Trains or engines travelling in the wrong direction through points," 79 against 57; "Trains running over cattle on the line," 1,824 against 1,637; "Trains running over obstructions on the line," 118 against 193; "The bursting of tubes, &c., of engines," 103 against 138; "The failure of machinery, springs, &c., of engines," 462 against 427; "The failure of couplings," 210 against 182; "Broken rails," 75 against 50; "The flooding of portions of permanent-way," 126 against 54; "Slips in cuttings or embankments," 27 against 82; "Fire at stations, or involving injury to bridges or viaducts," 43 against 72; and "Other accidents," 221 against 257.

4. Under "Collisions between goods trains or parts of goods trains," there was a decrease of 32 accidents, *viz.*, 3 under "Serious" and 29 under "Minor." The decrease under "Serious" was due to the number on the South Indian railway having fallen from 4 to 1, while that under "Minor" was chiefly due to a decrease of 9 on the Eastern Bengal (state) railway, of 8 on the North Western (state) railway, and of 7 each on the Rajputana-Malwa state and the Southern Mahratta railways, against an increase of 4 each on the Bengal-Nágpur and the Oudh and Rohilkhand (state) railways.

5. The increase under "Collisions between light engines" was chiefly due to the numbers recorded on the East Indian, the North Western (state) and the Bengal-Nágpur railways having risen from 7 to 16, from 4 to 8 and from nil to 3 respectively. Of the increase of 3 accidents under "Serious," the East Indian and the Bengal-Nágpur railways accounted for one each.

6. "Goods trains or parts of goods trains, engines, &c., leaving the rails" showed an increase of 80 accidents, made up of a decrease of 7 under "Serious" and an increase of 87 under "Minor." The decrease under "Serious" was chiefly due to a reduction of 3 each on the North Western (state) and the Nizam's Guaranteed State railways, while the increase under "Minor" was mainly owing to the number recorded on the East Indian railway having risen from 26 to 99.

7. The increase under "Trains or engines travelling in the wrong direction through points" was chiefly contributed by the East Indian railway, on which the number rose from 5 to 22.

8. The number of cattle accidents was largest on the Southern Mahratta railway, *viz.*, 427; next to that line comes the South Indian railway with 217; then the Rajputana-Malwa state railway with 162; the North Western (state) railway with 135; the Eastern Bengal (state) railway with 134; the North Indian railway with 116; the Oudh and Rohilkhand (state) railway with 103; and the Madras railway with 92.

As compared with the corresponding period of the previous year, the chief variations were an increase of 72 on the Southern Mahratta railway, the decreases of 39 and 24 on the North Western (state) and the Madras railways respectively.

In relation to train-mileage run, the number was highest on the Southern Mahratta railway, which gave an average of 1 accident in 5,608 train-miles, the Dibru-Sadiya railway coming next with an average of 1 in 6,510; then the Nizam's Guaranteed State, the Jorhát, the South Indian and the Rohilkhand and Kumaon railways with averages of 1 in 8,729, 1 in 11,427, 1 in 13,270 and 1 in 17,679 respectively. The lowest number recorded relatively to train-mileage run was on the Bombay, Baroda and Central India railway, *viz.*, 1 in

150,119; the Great Indian Peninsula railway coming next with an average of 1 in 118,266; then the Gaekwar's Dabhoi railway with 1 in 89,141; the East Indian railway with 1 in 87,108; the Burma (state) railway with 1 in 61,431; and the North Western (state) railway with 1 in 60,061.

9. The decrease of 75 accidents under "Trains running over obstructions on the line" was mainly due to there having been 55 less on the Eastern Bengal (state) railway, 7 less on the Southern Mahratta railway and 5 less on the North Western (state) railway. The decrease of 55 on the Eastern Bengal (state) railway was made up of three under "Serious" and 52 under "Minor."

10. Under "The bursting of tubes, &c., of engines," there was a noticeable decrease of 30 accidents on the South Indian railway.

11. "The failure of machinery, springs, &c., of engines" showed an increase of 53 accidents on the East Indian railway, of 20 on the Great Indian Peninsula railway, and of 11 each on the Bombay, Baroda and Central India and the Burma (state) railways, and a decrease of 26 on the Nizam's Guaranteed State railway, of 25 on the South Indian railway, and of 11 on the Southern Mahratta railway.

12. The increase under "The failure of couplings" was due to the number recorded on the Rajputana-Malwa state railway having risen from 34 to 65.

13. Of the increase of 25 accidents under "Broken rails," the Bengal-Nágpur and the Rajputana-Malwa state railways were responsible for 13 and 7 respectively.

14. Under the head "The flooding of portions of permanent-way," there was an increase of 72, of which 24 cases are recorded under "Serious" and 48 under "Minor." Under "Serious" the principal variations were increases of 15 on the North Western railway, of 7 on the Eastern Bengal (state) railway, and of 6 on the Nizam's Guaranteed state railway, and a decrease of 2 each on the Bombay, Baroda and Central India and the Bhávnagar-Gondal-Junágarh-Porbandar railways; while under "Minor" the increases were chiefly contributed by the Jodhpore-Bickaneer, the Southern Mahratta and the Rajputana-Malwa state railways, on which the numbers rose from 3 to 19, 5 to 19 and 3 to 18 respectively.

15. Under "Slips in cuttings or embankments," there was a decrease of 65 accidents, made up of an increase of 3 under "Serious" and a decrease of 58 under "Minor." The increase under "Serious" was due entirely to 7 accidents having been recorded under this head on the Bengal-Nágpur railway against nil during 1891; while the decrease under "Minor" was owing principally to the numbers recorded on the Bengal-Nágpur, the North Western (state) and the Great Indian Peninsula railways having fallen off from 29 to 3, 19 to 9 and 11 to 1 respectively.

16. Under "Fire at stations, or involving injury to bridges or viaducts," the accidents numbered 43 against 72, of which 12 against 40 took place on the Eastern Bengal (state) railway alone.

17. The cases recorded under the head "Other accidents" decreased chiefly on the North Western (state) railway, 42 against 76; on the Bombay, Baroda and Central India railway, 5 against 21; on the Burma (state) railway, 2 against 18; and on the Great Indian Peninsula railway, 4 against 16; but increased principally on the East Indian railway, *viz.*, 75 against 23.

18. Of the 10 cases of "Serious" accidents from "The failure of tunnels, bridges, viaducts, culverts, &c.," 8 occurred on the Eastern Bengal (state) railway alone.

19. The casualties to passengers, and to servants in the employ of railways or of contractors from accidents not coming under the classification adopted in paragraph 1, were, as compared with 1891, in the case of passengers, 55 killed and 139 injured against 65 killed and 212 injured, and, in the case of servants, 193 killed and 589 injured against 156 killed and 529 injured. (For details, *vide* abstract No. 2.)

20. The mean mileage open, train-mileage run, and the number of passengers, were 17,625,72, 60,505,076 and 127,230,914 against 16,970,630, 60,636,155 and 122,611,345* respectively during the previous year. The number of accidents per 1,000 train-miles was 0.07.

Out of a total of 127,230,914 passengers travelling, 8 passengers were killed and 42 injured by accidents to trains as classified in paragraph 1. This gives an average of 1 killed in 15,903,864, while the total number of killed and injured, viz. 50, gives an average of one casualty in 2,544,618 persons travelling and an average of one in 105,314,583 miles travelled.

Including casualties to passengers from causes other than accidents to trains, rolling-stock, &c. (vide paragraph 19), the total numbers of passengers killed and injured were 63 and 181 respectively, giving an average of one killed in 2,019,538, and one injured in 702,933, or an average, on the total number of killed and injured, of one casualty in 521,438 passengers travelling.

21. The total casualties to persons from all causes, including trespassers, Total casualties from all cases of suicide, &c., were 624 killed and 930 injured 1891. (For details, vide abstract No. 2.)

22. In addition to the above, 77 persons were reported to have been killed shops, &c. and 197 injured in yards, workshops, &c., and 956 persons to have died in carriages and at stations from causes unconnected with the working of trains.

23. Abstract No. 5 shews for the year 1892, as compared with ten previous years, the proportion of passengers killed and injured while travelling on the several railways open for traffic in India from causes beyond their own control.

24. Abstract No. 6 shows the number of enquiries into train accidents on the several railways open for traffic in India classified under certain heads for the year 1892 as compared with two previous years.

25. The accidents for the 4th quarter of 1892 are dealt with in the following note:

Note on accidents for the 4th quarter of 1892.

The following table gives the number of accidents as classified in paragraph 1 of the previous note, which resulted in loss of, or injury to, life and limb, and shows the railways on which they occurred:

RAILWAY.	Number of accidents during the 4th quarter of 1892.	PASSENGERS AND OTHERS.		SERVANTS.		TOTAL.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
North Western (state) ...	1	...	...	...	...	...	...
Oudh and Rohilkhand (state) ...	1	...	...	...	1	...	1
Eastern Bengal (state) ...	2	...	...	...	1	...	1
Great Indian Peninsula ...	3	...	...	...	4	...	4
Bombay, Baroda and Central India ...	1	...	1	1	4	1	5
Bengal and North-Western ...	1	...	...	...	1	...	1
Rajputana-Malwa ...	1	...	...	...	1	...	1
Southern Mahratta ...	1	...	1	...	...	...	1
Total,	...	...	2	2	12	2	14
Total of the corresponding quarter of 1891.	...	36	94	11	60	47	144

* Excludes the figures for the Cherra-Companyganj and Thabon-Duyinziak railways, which are now treated as steam railways.

2. North Western (state) railway.—On the 28th October 1892, the level-crossing gate at Rawalpindi was smashed by a shunting engine. The gateman, who was to blame, was severely injured.

3. Oudh and Rohilkhand (state) railway.—On the 27th December 1892, a level-crossing gate near Shahjahanpur was run through by No. 2 mail train. The gateman was injured.

4. Eastern Bengal (state) railway.—On the 10th December 1892, an up special goods train collided with a shunting engine in the Kaunia yard through the carelessness of the driver. Two railway servants were injured.

On the 18th December 1892, a collision took place in the locomotive yard at Calcutta between two light engines through the carelessness of the shunter. Two railway servants were slightly injured.

5. Great Indian Peninsula railway.—On the 5th December 1892, a down passenger train, while passing out of the station yard at Louavla, collided with a shunting engine which was taking water from a water-crane near a cross-over road. The accident was due to no notice having been issued by the Engineering Department regarding an alteration which was being made at the time in the position of the cross-over road. A passenger was slightly hurt.

On the 20th December 1892, an up goods train, while coming out of shed at Nagpur, collided with a wagon standing foul of the crossing, through the carelessness of the pointsman. A fireman was slightly injured.

On the 27th December 1892, a down mail train was admitted on to the wrong line at mile 479½ near Bagra and collided with some uncoupled wagons which were being loaded by coolies. One cooly was killed and three others injured. The station master, muccadam and the pointsman in fault were prosecuted.

6. Bombay, Baroda and Central India railway.—On the 12th November 1892, at Ahmedabad, the engine of an up mail train, while running round to the tail end of the train, was admitted into a wrong siding and collided with five wagons standing there. A railway servant was injured.

7. Bengal and North-Western railway.—On the 16th October 1892, a buffalo was knocked down by an up mixed train at mileage 53-10 between Daronda and Chainwa stations. Certain vehicles of the train were derailed and seriously damaged and the lamp-man accompanying the train was seriously injured.

8. Rajputana-Malwa railway.—On the 11th November 1892, a camel was knocked off the line at mile 136-20 near Sirsa on the Rewari-Ferozepore section. The accident was due to the animal having taken fright on the approach of the train and jumped over the fencing. The rider of the camel was slightly injured.

9. Southern Mahratta railway.—On the 11th October 1892, an up goods train collided with a light trolley at mile 218-17, between Bidadi and Kengeri stations. The accident was due to the trolley not having been properly protected by signals. The trolley was smashed and the time-keeper who was riding on it was killed.

RESOLUTION.—The Government of India notices that with an increase of 635.09 miles, or 3.86 per cent., in the mean mileage worked, and a decrease of 131,079 miles, or 0.22 per cent., in the train-mileage run, the number of accidents to trains, rolling-stock, permanent-way, etc., on Indian railways shows a decrease of 12, or 0.28 per cent., as compared with the previous year.

2. The numbers of passengers killed and injured by accidents to trains, etc., were 8 and 42 respectively against 56 and 135 during 1891; while the numbers of passengers killed and injured from causes other than accidents to trains, etc., were 55 and 139 respectively against 63 and 212.

3. Out of a total of 127,230,914 passengers travelling, there were 63 killed and 181 injured, or an average of 1 killed in 2,019,538 and of 1 injured in 702,933.

The proportion of passengers killed and injured by train accidents from causes beyond their own control as compared with the numbers travelling was 1 killed out of 15,903,864 and 1 injured out of 3,029,207.

4. The casualties to servants in the employ of railways or of contractors from accidents to trains, etc., were 19 killed and 48 injured against 27 and 94 respectively in the preceding year. From causes other than accidents to trains, etc., the casualties were 193 killed and 589 injured against 156 killed and 529 injured.

5. With an increase of 3.86 per cent. in the mean mileage worked and a decrease of 0.22 per cent. in the train-mileage run, it is observed that the total numbers of casualties from all causes over the whole of the Indian railway system as compared with the previous year decreased under killed from 645 to 624 or by 3.26 per cent., and under injured from 1,084 to 930, or by 14.21 per cent.

ORDER.—Ordered, that this Resolution, with the abstract returns, be

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

communicated for information to the Local Governments and Administrations, and to the 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*.

F. B. HEBBERT,
Under Secretary.

Documents accompanying.

Abstract returns of accidents for the twelve months ending the 31st December 1892.

Order thereon of 1124 R of 23rd August 1893.

*Communicated to the Agents,
Madras and South Indian
Railways.*

True Extract

/s/ H. W. Bennett.

*Offg Under Secy: to Govt
P.W.D. By: Lancel.*

Thrs: Cong: Congr: for Rys.

*To
The Agent & Manager Madras Ry
- Agent S. I. Ry*

*Rel
31-8*