

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.

G.O.	No.	Department.	Date.
	1822	R	8-8-91
	2308	R	15-10-91
	473	R	20-2-92
	2868	R	30-11-92
	721	R	17-4-93
	946	R	13-6-93

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
	218	Q	10-4-94				
	433	Q	11-8-94				

Enclosure to P. W. D. No. 483R. Stat., dated the 1st November 1892.

INDIAN RAILWAYS.

ABSTRACT RETURNS OF ACCIDENTS DURING THE THREE MONTHS ENDING 31st MARCH 1892.

Government of India Central Printing Office.—No. 66 D. O. By.—11-11-62.—770.

ABSTRACT No. 1.

GENERAL TOTAL.

NUMBER of PERSONS reported, during the THREE MONTHS ending the 31st March 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.	
PASSENGERS:—			
From accidents to trains, rolling stock, permanent-way, etc.	4	8	
By accidents from other causes, including accidents from their own want of caution or misconduct	15	32	
SERVANTS:—			
From accidents to trains, rolling stock, permanent-way, etc.	7	13	
By accidents from other causes, including accidents from their own want of caution or misconduct	43	147	
OTHER PERSONS:—			
Whilst passing over railways at level-crossings	6	3	
Trespassers	39	10	
Suicides	15	2	
Miscellaneous, not included in either of the above	3	4	
TOTAL	132	219	

ABSTRACT

NUMBERS OF RAILWAYS reported, during the THREE MONTHS ending 31st March 1892, as KILLED or INJURED in INDIA by the RAILWAY SERVANTS, and OTHER PERSONS, and classifying, as far as practicable,

[illegible]

- (a) includes the Panna-Gya, Tanch-Bhar, and Dehri-Umballa-Kahe railways.
 (b) " the Bhopal Itam railway.
 (c) " the Oonhar's M-hana railway.
 (d) " the Mysore and Kolapur railways.
 (e) " the Amritsar-Patna, Nagpur-Bhettada and Jammu and Kashmir railways.
 (f) " the narrow gauge sections and the Bregal Central railway.

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]

- (g) Includes the Youngoo-Mandalay and the Nu valley railways
(h) " the Wartha Coal, Ubeed-Meemed, Khongson and Samsothi railways.
(i) " the Garhwa's Petlad railway.
(j) " the Larknow-Marrilly section,
(k) " the Nevada extension.

ACCOUNTS TO TRAINS, ROLLING STOCK, PERMANENT-WAY, &c., reported during the THREE MONTHS ending 31st March 1992, 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.

[illegible]

(c) Includes the Patna-Gya, Farakhor, and Delhi-Lumbini-Katha railways.

(b) Includes the Unsub. Item raised.

(c) Includes the Gorkha's Mahasen roll no:

(c) Includes the Gashu's McQueen rollins.

ABSTRACT No. 3.—ACCIDENTS TO TRAINS, ROLLING STOCK, PERMANENT-WAY, &c., reported during the THREE MONTHS ending 31st March 1893, as having occurred on the several RAILWAYS open for TRAFFIC in INDIA, distinguishing the different CLASSES of ACCIDENTS and the number of PASSENGERS AND CREWS and of RAILWAY SERVANTS KILLED or INJURED in each class of accident—*could*

Accidents in each class or accident—could.	XIII Passenger Trains				XIV Goods Trains				XV Mixed Trains				XVI All Trains				XVII Grand Totals			
	No.	Number of persons injured and killed, other than those of the Indian Railways	Total number of persons injured and killed, other than those of the Indian Railways	Total number of persons injured and killed, other than those of the Indian Railways	No.	Number of persons injured and killed, other than those of the Indian Railways	Total number of persons injured and killed, other than those of the Indian Railways	Total number of persons injured and killed, other than those of the Indian Railways	No.	Number of persons injured and killed, other than those of the Indian Railways	Total number of persons injured and killed, other than those of the Indian Railways	Total number of persons injured and killed, other than those of the Indian Railways	No.	Number of persons injured and killed, other than those of the Indian Railways	Total number of persons injured and killed, other than those of the Indian Railways	Total number of persons injured and killed, other than those of the Indian Railways	No.	Number of persons injured and killed, other than those of the Indian Railways	Total number of persons injured and killed, other than those of the Indian Railways	
1. Collision between passenger trains or parts of passenger trains	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2. Collision between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Collision between goods trains or parts of goods trains	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4. Collision between light engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. Fast 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 axle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17. Ditto of brake apparatus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18. Ditto of couplings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19. Ditto of tunnels, bridges, viaducts, culverts, etc.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
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	163 163	...	...	...	3 112 115	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

6. What is the purpose of the study?

(a) Includes the Mysore and the Kolhapur railways.
(b) Includes the Aurangabad-Vaihanol, Jaunpur and Kachmir, and the Maljuna Bhairada railways.
(c) Includes the narrow-gauge sections and the Bengal Central railways.

Information no: furnished

(c) Includes the Tongue-Mandaley and the Min Valley rail ways.

7

TOTAL ALL CLAIMS

- (a) Includes the Warilla Coal, Dismal, Menard, Kensington and Aradell railways.
- (b) Includes the Washburn's Potted railway.
- (c) Includes the Leeburn-Murrell section.
- (d) Not a passenger.

..... STATE. PENNSYLVANIA, &c., reported during the THREE MONTHS ending 31st March 1892, as having occurred on the several RAILWAYS open for

APPENDIX No. 3.—ACCIDENTS TO TRAINS, ROLLING STOCK, PERMANENT-WAY, &c., reported during the THREE MONTHS ending 31st March 1892, not having occurred on the several RAILWAYS open for TRAFFIC in INDIA, distinguishing the different classes of ACCIDENTS and the number of PASSENGERS AND OTHERY and of RAILWAY SERVANTS KILLED or INJURED in each class of accident—*contd.*

[illegible]

(c) Includes the Dredge estimate.

ABSTRACT No. 3.—ACCIDENTS TO TRAINS, ROLLING STOCK, PERMANENT-WAY, &c., reported during the THREE MONTHS ending 31st March 1892, 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—*continued.*

[illegible]

TOTAL ALL CLASSES

ABSTRACT No. 4.

ACCIDENTS to TRAINS, ROLLING STOCK, PERMANENT-WAY, &c., on the several RAILWAYS open for TRAFFIC in INDIA, reported during the THREE MONTHS ending 31st March 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.

	TOTAL.							
	No.		NUMBER OF PASSENGERS AND OTHERS.		NUMBER OF SERVANTS.		TOTAL ALL CLASSES.	
	Accidents reported to Local Governments under section 83 of the Indian Railways Act No. IX of 1890.	Other accidents.	Total.	Killed.	Injured.	Killed.	Injured.	Total.
1. Collisions between passenger trains or parts of passenger trains	1	...	1	3	...	...	...	3
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	6	15	21	...	6	5	4	5
3. Collisions between goods trains or parts of goods trains	5	13	18	...	...	...	3	...
4. Collisions between light engines	2	16	18	...	...	...	...	...
5. Passenger trains or parts of passenger trains leaving the rails	9	13	22	1	2	...	...	1
6. Goods trains or parts of goods trains, engines, etc., leaving the rails	5	95	100	...	...	1	2	1
7. Trains or engines travelling in the wrong direction through points	2	23	25	...	...	1	2	1
8. Trains running into stations or sidings at too high a speed	...	...	...	...	...	...	...	...
9. Trains running over cattle on the line	...	302	302	...	...	...	...	...
10. Ditto over obstructions on the line	1	30	31	(a) 1	...	1	1	1
11. Ditto through gates at level-crossings	...	20	20	...	...	...	...	...
12. The bursting of boilers of engines	...	...	...	...	...	...	...	...
12(a). The bursting of tubes, etc., of engines	...	29	29	...	...	...	...	...
13. The failure of machinery, springs, etc., of engines	...	126	126	...	...	...	...	...
14. The failure of tyres	...	3	3	...	...	...	...	...
15. Ditto of wheels	...	1	1	...	...	...	...	...
16. Ditto of axles	2	19	21	...	...	...	...	...
17. Ditto of brake apparatus	...	2	2	...	...	...	...	...
18. Ditto of couplings	...	52	52	...	...	...	...	...
19. Ditto of tunnels, bridges, viaducts, culverts, etc.	...	...	...	...	...	...	...	...
20. Broken rails	...	19	19	...	...	...	...	...
21. The flooding of portions of permanent-way	1	...	1	...	...	...	...	...
22. Slips in cuttings or embankments	...	3	3	...	...	...	...	...
23. Fire in trains	1	72	73	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	...	17	17	...	...	...	...	...
25. Other accidents	2	70	72	...	...	...	1	...
TOTAL ALL CLASSES	37	1,029	1,066	(b) 5	8	7	13	21

Mean mileage worked	17,369
Number of servants employed	175,535
Train-mileage of all descriptions	16,295,802
Number of passengers carried	29,951,344
Passenger-mileage	1,709,434,007
Per mile open—	
Train-mileage of all descriptions	937
Number of passengers carried	1,722
Passenger-mileage	98,305
Total passengers—	
Killed per million of passengers	0.134
Injured per ditto ditto	0.267
Killed per million of passenger-miles	0.002
Injured per ditto ditto	0.005

(a) Not a passenger.

(b) Of these, one was not a passenger.

APPENDIX.

REPORT by LIEUT.-COL. T. B. B. SAVI, R.E., GOVERNMENT INSPECTOR for RAILWAYS, JHANSI, dated the 16th February 1892, on the collision which occurred on the 21st January 1892 between the No. 1 up mail and No. 58 down goods trains between AJMERE and MADAR STATIONS on the RAJPUTANA-MALWA RAILWAY.

In this case the No. 58 down goods (consisting of engine, three loaded wagons and one brake-van) left Ajmere at 2-59 and about 7 or 8 minutes afterwards came into collision with the No. 1 up mail (consisting of engine and 16 vehicles as shown in the evidence of guard Cline) which had run through Madar station about 2 minutes before the accident occurred.

2. The casualties were confined to the railway staff, only two passengers being slightly injured. Of the mail train the driver and native fireman were severely injured, the khallasi died very soon after the collision and the 2nd guard on the 25th January. The driver and native fireman of the goods train were killed and the khallasi died soon after the accident.

3. Both the engines were almost entirely wrecked, the front brake-van, two luggage vans next the engine and a composite 1st and 2nd class carriage were completely destroyed, and some of the other vehicles were more or less damaged.

Description of locality.

4. The distance between Ajmere and Madar stations is 4½ miles; the facing points at Madar, where the driver and guard of the No. 1 up mail picked up the line clear tickets, are at mile 270-16, that is, about one mile and a half from the place where the accident occurred, which was at mile 272-4, that is, at the 4th telegraph post, or about 350 yards beyond the 272nd milestone.

5. At the latter place the line is level for about 350 yards, with gradients of 1 in 150 rising towards Madar on one side and falling in the opposite direction.

6. About 600 yards from the place where the accident occurred the line in the direction of Madar for about 240 yards is in a cutting through some high ground which entirely obstructs the view in that direction. Owing to this high ground and the trees along the line there is a clear view of less than a quarter of a mile towards Madar from the site of the accident, but towards Ajmere the view extends to about ½ of a mile. As the two trains were approaching towards one another at the rate of probably 50 miles an hour, they must have collided almost immediately after the lights on one engine would have been visible to the men on the other engine.

7. At the joint enquiry the following evidence was taken down:

EVIDENCE.

Solomon Jak, assistant station master, Ajmere.—I have been here in that position since June 1887. I was on duty last night. No. 2 down mail was running 1 hour 19 minutes late; on her departure at 2-28 I told Sheo Narayan, sub-assistant station master, to ask Madar for line clear for No. 58 down goods on the arrival of down mail at Madar. I told him verbally; I wrote nothing in the book. He has been in the habit of asking line clear without my orders. I then went out to enquire if No. 58 down goods was ready, and the train clerk said it was not ready, so I came back to the office and found Sheo Narayan was not there, so I called out to the signaller on duty, Soharam. I asked him if he had signalled enquiry to Madar, and he said yes. I then asked if he had received the line clear, he said no. I then told him that the up mail was due at Madar, that if Madar gave line clear for 58 down there was nothing to be said, but if he cancelled the enquiry and asked for line clear for the up mail to send word to me immediately, and I went to the yard to see if No. 58 was ready or not, and I found that she was—but the engine was not attached. I then went back to the

office; I asked the same signaller if he had obtained line clear, and he said yes, and I went to wake up the guard of No. 58, who was asleep in the train clerk's office. I sent the second guard to fetch the engine and took the head guard with me to the office, and I sent for the line clear and it was brought. I entered the time 2-50 A.M., and I gave it to the guard in the office; he read it, signed for it and went out. About 2 or 3 minutes afterwards I followed him and went to No. 58 down. I found the shunting engine shunting in front, and the engine of No. 58 down was not yet on. I stopped the shunting and brought the engine. I then looked at my watch and saw it was 2-59 and I altered the "time of departure" on the line clear in pencil and initialled the correction. I told the driver not to lose time, but to go sharp as the up mail was due and must not be detained. The train then started. I immediately returned to the office to give departure to Madar. I took about two minutes to walk to the office. When I got to the office, Abdulla khallasi told me that the up mail had left Madar, and going to the telegraph office, from which all messages are sent, I

asked Sheo Narayan if it was a fact that he had given line clear and that the train had left; he said "yes;" and when I asked him, why, he said I thought you had detained No. 58 down, because it was not ready. I did not look in the book to see if the departure of the up mail had been signalled, but I told the signaller Sobaram to enquire from Madár if she had actually left, and if not, to ask Madár to stop her—he signalled something. I do not understand signalling, and Madár replied "just passed" so the signaller told me. No record was kept. There is an order directing that copies of all messages connected with train working should be kept. I ran out of the office to warn the staff to keep a line clear in the yard in case of the return of any engine or train. I then waited for a few minutes, and when I saw no sign of any engine or train coming, I sent one of my pointmen towards Madár, at 4-10. A memo. was sent to me by the head guard of the goods train to the effect that one up mail had collided with No. 58 down.

All this time I had not looked at the train message register. Directly I got the memo., I woke up Mr. Priestley, and gave a memo. to the head constable to arrest Sheo Narayan.

I do not know how long Sheo Narayan was away from the office as mentioned above.

I gave Sheo Narayan no instructions about the up mail. The only orders I gave Sheo Narayan were about No. 58 down goods. After returning the last time to the office after I had warned the staff to keep a road clear, I questioned Sobaram, signaller, why he signalled line clear for the up mail when he knew that I had got line clear for 58 down, and he said that he did not signal it, but that Sheo Narayan had signalled it. Then I asked why he had not stopped Sheo Narayan, and he said that he had spoken to him, but that Sheo Narayan would not take any notice.

Sheo Narayan had no authority to give "line clear" without my directions. I do not know of any case in which a sub-assistant station master has given line clear without my orders. I am positive that there is an order directing a sub-assistant station master not to give "line clear" without the orders of the station master on duty, and that is the practice. At present these orders are not hung up either in my office or the signaller's office. If the sub-assistant station master wishes to give a line clear and I am in the office, I give my orders verbally to him; if I am not in the office, then he sends either a memo. or the train message book, and if I initial the book or the memo. he gives line clear accordingly. Sometimes I give the sub-assistant station master orders in advance about certain trains, and in that case he can and does act on them. I gave the sub-assistant station master no orders about the detention of No. 58 down goods or the cancellation of its line clear. I am generally on duty 12 hours, sometimes 13 hours, and all the time I give authority for all "line clears;" for a goods

train the sub-assistant station master signs the line clear, and sometimes starts the train. I signed the line clear for No. 58 down goods.

Mahomed Hussain Khan.—Five years' service. Last night I was head guard of No. 58 down goods. My load consisted of 3 loaded and one brake. We left Ajmere at 2-59 a.m., 39 minutes late. Mr. Jah gave me the line clear and said we were to cross No. 1 up mail at Madár. I gave the line clear to the driver and the driver Joseph started. I heard no danger whistle, except that just before the accident I heard some whistle. I think it was given by my driver. I looked out to see what had happened, and at that moment the collision occurred. My train was going fast, about 18 or 20 miles.

Hugh Robert Cline.—I am head guard, 13 years' service. On the morning of 21st I was head guard of No. 1 up mail, riding in the rear brake-van. My train was composed as under:

- 1 Engine No. 393; driver Stone.
- 2 Luggage vans.
- 1 Brake-van.
- 1 Composite, 1st and 2nd.
- 1 Postal and intermediate.
- 1 Intermediate.
- 1 Second class.
- 1 First class.
- 1 Luggage van.
- 4 Third class carriages.
- 2 Bogie thirds.
- 1 Rear brake-van.

Sixteen vehicles equal to 18, a full load being 20. We ran through Madár station. I looked at the time, it was 3-8. It was a moonlight night, but cloudy, but it was not very dark. After passing Madár, about 1 mile, I heard the whistle sounded 3 times sharply as a danger signal. I immediately put on the brake, and whilst I was doing it the collision happened. I was thrown against the brake partition. On recovering I looked at my watch and it was exactly 3-8. I had set my watch right that day by Bándikui time. Just before hearing the danger signals my train was I think going about 20 to 24 miles an hour. The collision happened at mileage 111.

Sobaram, son of Ganes Ram.—I am a signaller at Ajmere station; I have been five years in the service. I have been relieving assistant station master. I am now signaller. I came on duty at 22 hours on the night of the 20th. Sheo Narayan sent me the train message book from his office by a khallasi with line clear enquiry No. 5 for No. 58 down goods. This message is signed by Sheo Narayan; I signalled it then, and there is my signature. I signalled it at 2-39; at 2-40 I received message No. 4 from Madár to the effect that 2 down mail had arrived and that the line was clear for No. 58 down goods, and that it was to be sent sharp. I then wrote out both sides of line clear No. 224, dated 21st January 1892, at 2 hours 40 minutes, and having done this I sent both the train message book and the line clear book to the station master's office. After a few minutes Mr. Jah

came into my office and asked me where the up mail was, and I said that there was no news of her yet, and he then went out; about 10 minutes after I received message No. 6 from Madár (2-54 a.m.) asking Ajmere to cancel his No. 3 and Ajmere No. 5 (above) and to give line clear for No. 1 up mail which had left Ládpara at 2-51 and to detain No. 58 down goods if not ready, concluding by saying that 2 down mail had arrived there. (This message clearly wrong as it refers to Madár's No. 3 instead of No. 4 as it should.)

I then passed the book by the hands of a khallasi to Sheo Narayan, who was sitting in the same room about two yards off.

The time entered as "time seen by station master" is not in my handwriting. The khallasi brought the book back to me and it had the message No. 6 acknowledging Madár's No. 5, and saying that No. 58 down had been detained and that line was clear for No. 1 up mail. The time of receipt (evidently altered) 22-58, and the signature of the signaller are in Sheo Narayan's handwriting. When I got the book I called Madár on the instrument, and whilst I was doing so I mentioned to Sheo Narayan that line clear had already been given for No. 58 down goods; he gave no reply and I then signalled the message at 3 o'clock. Sheo Narayan then went out and then came back at once and asked me if I had signalled the line clear for the mail, and on my saying I had, he said all right. After a few minutes I received message No. 16 from Madár at 3-6, saying that the mail had left Madár at 3-4; I then told the khallasi to ring the bell. Almost immediately Mr. Jah came into the room and said "I have started No. 58 down," "there will be trouble;" when Mr. Jah came, Sheo Narayan was in the room. After this Mr. Jah went out and then came back and told me to inform Madár that the goods had left from here and to send a man out from the other side, and both I and Sheo Narayan told Madár on the instrument. I sent no message about stopping the mail. The name of the khallasi by whose hand I passed the train message to Sheo Narayan was Buldeo.

At the time I sent the line clear ticket and the train message book about No. 58 down, Sheo Narayan was not in my office; a short time after this Sheo Narayan and Mr. Jah came into the office together, and Mr. Jah asked me if line clear had been asked for the mail, and I said it had not yet been asked; Mr. Jah then left my office and Sheo Narayan stopped there. Mr. Jah gave no orders before leaving the office. He was seated at the table quite close to me and was awake.

The train message book remained in the station master's office from the time when I sent it with the line clear for No. 58 down, till Madár began to roll for enquiring about the line clear for No. 1 up mail, when I sent for it in order to enter the message. I did not get back the line clear book till Mr. Jah brought it back when he came into the office after I had sent the khallasi to ring the warning bell for the departure of the up mail from Madár.

Sheo Narayan.—I am sub-assistant station master at Ajmere: I have 10 years' service; I have been ever 18 months at Ajmere, all the time as sub-assistant station master. I am under the orders of the station master and assistant station master. There is a copy of traffic manual, Part I, in the office. I can see it whenever I want to. It is my duty to know it and I do know it. The rules for line clear working are in it, and I know them. I was on duty on the night of 20th, morning of 21st; I came on duty at 20 o'clock on 20th; I had gone off duty at 8 o'clock on 20th. There is another sub-assistant station master at Ajmere. He and I take night duty on alternate weeks.

On the morning of 21st, I at 2-30 authorised the sending of message No. 5 to Madár asking if line was clear for No. 58 down goods. I sent this message by Mr. Jah's orders. It is the practice always to take the orders of the assistant station master on duty before sending messages, either asking or giving line clear, but not as regards departure messages. I do not know what Madár replied. At 2-56 (those figures are in my handwriting). I saw message No. 6 from Madár asking Ajmere to cancel Madár's No. 3 and Ajmere's No. 5, and asking if line was clear for No. 1 up mail, left Ládpara at 2-51, and asking that No. 58 down goods might be detained if she was not ready, and adding that No. 2 down mail had arrived.

I did not look to see what Madár's No. 3,* because I knew it was (I now see that Madár's No. 3 is giving) line clear for No. 2 down mail. There is nothing in it about No. 58 down goods. I did not know that a line clear had been issued for No. 58 down goods.

I did not think what Madár wanted to cancel; I simply took it as cancelling my enquiry No. 5.

I then at 2-58 wrote out message No. 6 to Madár to the effect that No. 58 was detained at Ajmere and that line was clear for No. 1 up mail. I gave the book back to the khallasi who had given it to me, and I saw the khallasi give it to signaller Sobaram. Sobaram said nothing to me, and I do not know if he sent the message.

Before I signed message No. 6, I had taken Mr. Jah's orders. Before the receipt of message No. 5, Mr. Jah had come into the office some time after signalling the enquiry for No. 58 down, and after enquiring for No. 1 up mail, he said, "In case Madár asks line clear for No. 1 up mail give it and 58 will be detained here (detain 58 here because we have not got 58 ready)." This was in the hearing of Sobaram and the signaller in charge, Rada Kishen.

I issued No. 6 solely on these verbal orders and I neither sent Mr. Jah the book, nor did I send him any memo.

Before issuing telegram No. 6 I did not search the book to see whether an answer

* The words within parentheses were corrected to those in italics by Sheo Narayan on 25th February 1892, when this statement was signed by him in presence of Government Inspector for Railways, Jhānsi.

† The words within parentheses were corrected to those in italics by Sheo Narayan on 25th February 1892, when this statement was signed by him in presence of Government Inspector for Railways, Jhānsi.

had been received to message No. 5 or whether Madár had in fact given line clear for No. 58 down.

Samuel Timothy, station master at Ajmere.—Thirteen years' service. I have been station master at Ajmere a little over 5 years. The practice at Ajmere is for the sub-assistant station master to consult the assistant station master on duty before he either enquires for line clear or gives a line clear. If they are together, he takes verbal orders; if the assistant station master is in the yard, the sub-assistant station master in case of out-going trains goes himself or sends a khallasi with a verbal message to ask if the train is ready; and in cases in which he has to give line clear,

he either goes personally or sends the train message book to enquire if line clear may be given, or in some cases he sends a memo. on a slip of paper, but never a verbal message. If the assistant station master were going into the yard and expecting a train from another station, he might say to the sub-assistant station master that if such a station asks a line clear for such a train, you can give it, and in that case the sub-assistant station master would be justified in giving the line clear without further reference. I have always found Sheo Narayan careless and he cannot keep up at night. I have had no occasion to report him.

Conclusion.

8. From the foregoing evidence it appears that on the departure of the No. 2 down mail which was running late, the sub-assistant station master at Ajmere was verbally instructed by the assistant station master on duty to obtain line clear from the station master at Madár for the No. 58 down goods train on the arrival of the above down mail at Madár. This was done and the message No. 4, sent in reply to the enquiry and giving line clear for No. 58 down goods, was received from Madár at 2-40 by the signaller on duty at Ajmere who prepared and sent the line clear ticket for the No. 58 down goods train to the office of the assistant station master. The latter obtained this line clear ticket at 2-50 and started off the No. 54 down goods about 2-59. While the assistant station master was thus engaged, the signaller on duty received at 2-54 a message No. 5 from the station master at Madár, asking for his line clear message No. 4 (not No. 3) to be cancelled and No. 58 down goods to be detained at Ajmere, and for line clear to be given for the No. 1 up mail, which he stated in this message had left Akhri at 2-31 (not Ládpara at 2-51).

9. This message No. 5 was taken to the sub-assistant station master, who at 2-58, without reference to the assistant station master on duty, wrote out a reply to the effect that No. 58 down goods train would be detained at Ajmere and that line was clear for the No. 1 up mail. The station master at Madár consequently allowed the No. 1 up mail to run through Madár when the No. 58 down goods was on its way to that station, and thus the two trains came into collision about 2 or 3 minutes after the No. 1 up mail had passed through Madár and about a mile and a half from that station.

10. The collision is therefore primarily due to the neglect of duty on the part of the sub-assistant station master on duty, in not making sure that the No. 58 down goods train had been detained, and for giving line clear for the No. 1 up mail without first obtaining the orders of the assistant station master on duty, and before he had cancelled the line clear ticket given for the No. 58 down goods train.

11. The sub-assistant station master, however, states that he knew nothing about message No. 4; and this may be true, and also his statement, which is supported by that of the signaller on duty, that No. 3 and not No. 4 was the number of the message referred to by the station master at Madár in his message No. 5 asking for line clear for the No. 1 up mail, and for No. 58 down goods train to be detained at Ajmere. But the station master at Madár in this message No. 5, according to his own statement and the train message register kept by him, informed the station master at Ajmere that the No. 1 up mail had left Akhri (which is the second station from Madár and 7½ miles from it) at 2-31, and he did not telegraph anything about Ládpara (which is the next station to and 4½ miles from Madár), as stated by both the signaller on duty and the sub-assistant station master. The evidence of these two last cannot therefore be depended upon with regard to the wording of No. 5 message.

12. The train staff of both the mail and goods trains are free from all blame, and the collision must have taken place almost immediately after the lights on the one engine could possibly have been visible to the men on the other engine.

13. The responsibility for allowing the No. 1 up mail to run through Madár station appears to rest between the assistant and sub-assistant station masters on duty at Ajmere; but it seems to me that the station master at Madár can hardly be absolved from all blame because he accepted a line clear message which was not strictly in accordance with the prescribed form.

14. In Part I of the Rujputana-Malwa Railway Traffic Manual, as corrected by memo. No. 12 of 1890, there is the following rule on the subject of quotation of the number of previous messages:

"Para. 132.—In all replies to train messages of whatever description, or references to former train messages, the number of message that is replied to or referred to must be given."

This rule was not, it seems to me, carried out in this case; and although it is impossible to say whether the accident would not have occurred if it had been strictly observed, still I think it is worthy of consideration whether it would not be advisable to issue some further instructions (1) strictly prohibiting the sending and accepting of train messages of fewer words than prescribed in the traffic manual, and (2) requiring the correction of any error in the quotation of the numbers of the train messages that are referred to in the reply before the

latter is accepted. The first suggestion is no doubt supposed to be understood by all station masters, but I can find no definite rule about it in the traffic manual; and the second suggestion appears to me especially required in all cases, such as this one, when a line clear message is given and afterwards cancelled for any reason.

Finding.

15. The finding of the joint enquiry, which was commenced on the same day as the accident occurred and completed on the following day, was as follows:

"We are of opinion that the accident was caused by disregard of orders for line clear working, and that Sheo Narayan should be prosecuted for endangering the safety of life and property by giving line clear to Madár for the No. 1 up mail of January 21st, contrary to rules."

Sheo Narayan has since been sentenced to pay a fine of 50 rupees.

GOVERNMENT OF INDIA.
PUBLIC WORKS DEPARTMENT.
RAILWAY STATISTICS.

Simla, the 1st November 1892

**Returns of accidents on Indian railways for the three months
ending the 31st March 1892.**

Read again—

Public Works Department Resolution No. 733 R.T., dated the 17th October 1890.

Public Works Department Order No. 33 R. Stat., dated the 15th September 1891.

Read also—

The following note by the Director General of Railways, No. 427 Stat., dated the 21st October 1892, with abstract returns of accidents to trains, &c., on the open lines of railway in India for the three months ending the 31st March 1892.

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

Serial No.	CLASSES OF ACCIDENTS.	Average number of accidents during the corresponding periods of 1890 and 1891.	THREE MONTHS ENDING THE 31st MARCH 1892.									
			NUMBER.			NUMBER OF PASSENGERS AND OTHERS.		NUMBER OF SERVANTS.		TOTAL ALL CLASSES.		
			Accidents reported to local governments under section 83 of the Indian Railways Act (IX of 1890).	Other accidents.	Total.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
1	Collisions between passenger trains or parts of passenger trains	4	1		1	3	...	...	...	...	3	...
2	Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	13	6	15	21	...	6	5	4	5	19	...
3	Collisions between goods trains or parts of goods trains	22	5	13	18	...	...	...	...	3	...	3
4	Collisions between light engines	3	2	18	19	...	...	...	...	...	...	...
5	Passenger trains or parts of passenger trains leaving the rails	14	9	13	22	1	2	...	...	...	1	2
6	Goods trains or parts of goods trains, engines, &c., leaving the rails	74	3	95	100	...	...	1	2	1	1	2
7	Trains or engines travelling in the wrong direction through points	11	2	23	25	...	...	1	2	1	1	2
8	Trains running into stations or sidings at too high a speed	...	...	...	...	...	...	...	...	...	...	...
9	Trains running over cattle on the line	206	...	392	392	...	...	...	...	...	...	...
10	Trains running over obstructions on the line	38	1	30	31	(a) 1	...	...	...	1	...	1
11	Trains running through gates at level-crossings	17	...	20	20	...	...	...	...	...	...	...
12	The bursting of boilers of engines	...	...	...	...	...	...	...	...	...	...	...
12 (a)	The bursting of tubes, &c., of engines	36	...	28	24	...	...	...	...	...	...	...
13	The failure of machinery, springs, &c., of engines	100	...	126	126	...	...	...	...	...	...	...
14	The failure of tyres	1	...	3	3	...	...	...	...	...	...	...
15	" " of wheels	...	...	1	1	...	...	...	...	...	...	...
16	" " of axles	10	2	19	21	...	...	...	...	...	...	...
17	" " of brake apparatus	...	...	2	2	...	...	...	...	...	...	...
18	" " of couplings	50	...	52	52	...	...	...	...	...	...	...
19	" " of tunnels, bridges, viaducts, culverts, &c.	...	...	19	19	...	...	...	...	...	...	...
20	Broken rails	10	...	19	19	...	...	...	...	...	...	...
21	The falling of portions of permanent-way	3	1	3	1	...	...	...	...	...	...	...
22	Slips in cuttings or embankments	7	...	3	3	...	...	...	...	...	...	...
23	Fire in trains	54	1	72	73	...	...	...	...	...	...	...
24	Fire at stations, or involving injury to bridges or viaducts	17	...	17	17	...	...	...	...	...	...	...
25	Other accidents	44	2	70	72	...	...	...	1	...	...	1
TOTAL FOR THE THREE MONTHS ENDING THE 31st MARCH 1892		...	37	1,029	1,066	(b) 5	8	7	13	12	21	
TOTAL—Average of the corresponding periods of 1890 and 1891		...	...	...	846	3	10	5	10	8	20	

(a) Not a passenger.

(b) Of these, one was not a passenger.

2. As compared with the average of the two corresponding quarters of 1890 and 1891, the number of accidents to trains, rolling stock, permanent-way, &c., during the first quarter of 1892, shows an increase of 220 or 26·00 per cent., with an increase of 1,113 miles, or 6·84 per cent. in the mean mileage worked, and of 1,617,754 miles, or 11·02 per cent. in the train-mileage run.

3. The chief increases occurred under "Collisions between light engines" 18 against 3; "Goods trains or parts of goods trains, engines, &c., leaving the rails," 100 against 74; "Trains or engines travelling in the wrong direction through points," 25 against 11; "Trains running over cattle on the line," 392 against 296; "The failure of machinery, springs, &c., of engines," 126 against 100; "Fire in trains," 73 against 34; and "Other accidents," 72 against 49.

4. The increase under "Collisions between light engines" was chiefly due to the numbers recorded on the East Indian and North Western railways having risen from 1 to 9 and nil to 3 respectively.

5. "Goods trains or parts of goods trains, engines, &c., leaving the rails" shewed an increase of 26 accidents. The chief variations were increases of 27 on the South Indian railway, and 6 on the North Western railway and a decrease of 7 on the Bengal and North Western railway including the Tirhoot section.

6. Of the increase of 14 accidents under "Trains or engines travelling in the wrong direction through points," 7 occurred on the East Indian railway and 5 on the Bengal-Nágpur railway.

7. The number of cattle accidents was largest on the Southern Mahratta railway, viz., 122; next to that line comes the South Indian railway with 61; then the Eastern Bengal state railway with 36, the Madras railway with 26, the Great Indian Peninsula railway with 22, and the East Indian and Rajputana-Malwa railways with 19 each.

As compared with the average of the corresponding quarters of the two previous years, the chief increases occurred on the Southern Mahratta and South Indian railways, viz., 61 and 32 accidents respectively.

In relation to train-mileage run, however, the number was highest on the Dibru-Sudiya railway, which gave an average of 1 accident in 2,877 train-miles, then the Southern Mahratta railway coming next with an average of 1 in 4,993; then the Jorhát, the Nizam's Guaranteed State, the South Indian and the Eastern Bengal state railway with averages of 1 in 6,806, 1 in 11,350, 1 in 12,293 and 1 in 22,350, respectively. The lowest number recorded relatively to train-mileage run was on the Bombay, Baroda and Central India railway, viz., 1 in 651,769, the Indian Midland railway coming next with an average of 1 in 212,374; then the North Western railway with 1 in 150,871, the Great Indian Peninsula railway with 1 in 139,770, the East Indian railway with 1 in 131,767, and the Bengal and North Western railway, including the Tirhoot section, with 1 in 125,003.

8. Under "The failure of machinery, springs, &c., of engines," the principal variations were increases of 16 accidents on the North Western railway, of 11 each on the East Indian and Bengal-Nágpur railways, and a decrease of 17 on the Nizam's Guaranteed State railway.

9. The cases of "Fire in trains" were more by 19, of which 35 against 19 occurred on the Great Indian Peninsula railway.

10. "Other accidents" shewed an increase of 24, of which 23 occurred on the East Indian railway.

11. The accidents under "Passenger trains or parts of passenger trains, leaving the rails" numbered 22 against 14, of which 7 against nil were recorded on the East Indian railway alone.

12. The casualties to passengers and servants in the employ of railways or of contractors, from accidents not coming under the classification adopted in paragraph 1, were, in the case of passengers, 15 killed and 32 injured, against 16 killed and 32 injured, and, in the case of servants 43 killed and 147 injured, against 32 killed and 117 injured (for details, *vide* abstract No. 2).

13. The total casualties to persons from all causes, including trespassers, cases of suicide, &c., were 132 killed and 219 injured, against 131 killed and 189 injured, the average of the corresponding quarters of the two preceding years. (For details, *vide* abstract No. 2.)

14. In addition to the above, 28 persons were reported to have been killed and 42 injured in yards, workshops, &c., and 316 persons to have died in carriages and at stations from causes unconnected with the working of trains.

15. The following table gives, for the first quarter of 1892, the number of accidents as classified in paragraph 1, 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 1st quarter of 1892.	PASSENGERS AND SERVANTS.		SERVANTS.		TOTAL.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Bengal-Nágpur ...	2	...	1	1	1	1	2
Bengal and North Western ...	1	...	...	...	1	...	1
Rajputana-Malwa ...	2	3	2	5	2	8	4
Southern Mahratta ...	1	...	...	...	1	...	1
South Indian ...	1	...	3	...	...	...	3
North Western ...	4	1	2	1	2	2	4
Great Indian Peninsula ...	6	1	...	...	5	1	5
The Gackwar's Dabhoi ...	1	...	...	...	1	...	1
TOTAL ...	...	5	8	7	13	12	21
Average of the two corresponding quarters of 1890 and 1891.	...	3	10	5	10	8	20

16. *Bengal-Nágpur railway.*—On the 10th January 1892, a collision took place at Chakardharpore between a down goods and an up mail train. The accident was principally due to the assistant station master having allowed shunting to take place after line clear had been given for the in-coming mail train. A passenger was injured.

On the 9th March 1892, a shunting engine with a horse-box and two wagons collided with the brake-van of an up goods train at Chakardharpore through the carelessness of the pointsmen. A pointsman—the man at fault—was killed, and another seriously injured.

17. *Bengal and North Western railway.*—A trolleyman, while bringing a trolley on the main line at Bunwarchak, was hurt by the trolley having run against a truck which was standing on the line.

18. *Rajputana-Malwa railway.*—On the 21st January 1892, a collision took place between an up mail and a down goods train at mileage 272-4 between Ajmoro and Madár stations, owing to the carelessness of the sub-assistant station master. Two passengers were slightly injured and five railway servants killed and two seriously injured. There was also considerable

damage to rolling stock. The sub-assistant station master who was at fault, was prosecuted and sentenced to pay a fine of Rs. 50. A detailed report of this accident will be found in the appendix to the abstract return of accidents.

On the 26th March 1892, a down special passenger collided with another down special at Ratika Nagla owing to one train having been admitted to the station while the other was standing foul of the points. Three passengers were killed. The station master who was at fault was prosecuted and sentenced to one year's rigorous imprisonment.

19. *Southern Mahratta railway.*—On the 22nd March 1892, a shunting engine, while going to shed at Qadag, ran on to the platform line and collided with a down mixed train standing there. The accident was due to the points not having been properly set. A pointsman was slightly injured.

20. *South Indian railway.*—On the 26th February 1892, while the engine and front portion of an up mixed train were shunting at the Nillikuppam station, an up material special collided with the rear portion of the train owing to the driver of the material special having run past the danger signal. Three passengers were injured.

21. *North Western railway.*—On the 3rd March 1892, a collision took place between an up goods and a down goods train at Wán Rádharam through the carelessness of the points jemadar. A fireman was slightly hurt. The jemadar has been dismissed.

On the 10th March 1892, a down special empty train entered Gujranwála station against signals and collided with a down goods train. A fireman was slightly injured, and the rolling stock considerably damaged. The driver of the special empty, through whose carelessness the accident occurred, was prosecuted, but was acquitted by the District Magistrate, Lahore.

On the 18th March 1892, the hunder local train while coming to Sehwan was put on two lines and a brake-van was derailed and a third class carriage overturned. The accident was owing to the points jemadar not having held the points' lever. One passenger was killed and two slightly injured. Permanent-way and rolling stock were also damaged.

On the 31st March 1892, a material trolley was derailed at mileage 174 between Tandúrf and Babar Kach stations, and a contractor's cooly who was on the trolley received serious injuries which ended fatally.

22. *Great Indian Peninsula railway.*—On the 5th February 1892, an up mixed came in against signals and collided with a ballast engine at Wardha. Two wagons were smashed and two damaged. A railway servant was also slightly injured.

On the 23rd February 1892, a cart was run over by a special goods train at a level-crossing near Shegaon. The accident was caused by the carelessness of the gateman, who had fallen asleep, leaving the gates open. One bullock was killed, and the cartman received severe injuries which resulted in death.

On the 24th February 1892, a brake-van whilst being hand-shunted into the up yard at Kására collided with an engine, and the pointsman, who was in the brake-van, was injured.

On the 12th March 1892, certain wagons of a ballast train were derailed while shunting at Tápti, owing to the points having been reversed. A ballast cooly woman, in jumping from one of the derailed wagons, was slightly injured.

On the 15th March 1892, while an up special goods was being placed in a siding at Diva to allow a mail train to pass, the rear brake of the former train capsized and two wagons derailed. The accident was due to the carelessness of the mucedam. The guard of the brake, in jumping out, was slightly injured, and the rolling stock and permanent-way considerably damaged.

On the 31st March 1892, a brake-van collided with two machine-brakes on the ghát line yard at Kására through the carelessness of the pointsman. A brakesman was slightly injured.

23. *The Gaekwar's Dabhoi railway.*—On the 11th March 1892, a salt wagon whilst being hand-shunted at Miyágám ran over a closed point through the neglect of the shunting staff. A contractor's cooly, who was standing on the wagon, was injured.

ORDER—Ordered, that the above note 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 Baluchistan.
The Director General of Railways.
The Consulting Engineers 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 the note, with the abstract returns, be published in the supplement to the *Gazette of India*.

J. A. Roberts

M. Inst., C.E.,

Under Secretary.

Documents accompanying.

Abstract returns of accidents for the three months ending the 31st March 1892.

with 110 & from office

To the Joint Secretary to the
Government of Madras.
Railway Branch.
Public Works Dept.

X will follow from Calcutta

B. No 2868 R. 30-11-92.

11/25/1007

Communicated
to the Consulting En-
gineer for Railways for
information..

6-10-11/10
6-10-11/10

Recd: 12-11-92

B. No 2868 R. 30-11-92.

4
Offs: R

- No 1852 R. 20-11-90
- 372 R - 10-2-91
- 1001-2 R - 1-5-91
- 1223-4 R - 27-5-91
- 1822 R - 8-8-91
- 2308 R - 15-10-91
- 473 R - 20-2-92.

23/24/33

To the Comptroller for Rys.
34/11/92

23/11/92
H. 23/11 R 28/11
J.C. 3/12

Enclosure to P. W. D. No. 77 R. Stat., dated the 13th March 1893.

INDIAN RAILWAYS.

ABSTRACT RETURNS OF ACCIDENTS DURING THE SIX
MONTHS ENDING 30TH JUNE 1892.

ABSTRACT No. 1.

GENERAL TOTAL.

NUMBER of PERSONS reported, during the SIX MONTHS ending 30th June 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.
PASSENGERS:—		
From accidents to trains, rolling-stock, permanent-way, etc.	6	39
By accidents from other causes, including accidents from their own want of caution or misconduct	27	79
SERVANTS:—		
From accidents to trains, rolling-stock, permanent-way, etc.	16	29
By accidents from other causes, including accidents from their own want of caution or misconduct	95	302
OTHER PERSONS:—		
Whilst passing over railways at level-crossings	14	11
Trespassers	113	40
Suicides	31	2
Miscellaneous, not included in either of the above	4	7
TOTAL	305	509

ABSTRACT

[illegible]

(a) includes the Patna-Gaya, Taranahwar and Delhi-Umballa-Kalka railways.
 (b) " the Bhawalilard railway.
 (c) " the Garhwal's Mohana railway.
 (d) " the Mysore and Kullapur railways.
 (e) " the Amritsar Pathankot, Rajpura Multiana and Jammu and Kashmir railways.

No. 2.

by the TRAVELLING of TRAINS or the MOVEMENT of VEHICLES used exclusively upon RAILWAYS, distinguishing between the nature and causes of the ACCIDENTS occasioning the DEATH or INJURY.

VANTO

[illegible]

- (f) Lucknow the Bengal Central and the narrow gauge railways.
- (g) " the Tuguee Mandalay and Ma Valley railways.
- (h) " the Waraba Coal, Dham-Dhammed, Khamgaure and Samdoli railways.
- (i) " the Goechara Potted railway.
- (j) " the Mohitband-Kumana (Lucknow-Bareilly Section).
- (k) " the Baroda extension.

ABSTRACT No. 3.

ACCIDENTS TO TRAINS, ROLLING-STOCK, FERRYMENT-WAY, ETC., reported, during the six months ending 30th June 1898, 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.

	East Indian. (a)				Bengal-Nagpur.				IV. Indian Malabar. (b)				X. { Reports and Notes, Warnings— Lancaster and Company's Reports.			
	Number.		Number of passengers and others.	Total all classes.	Number.		Number of passengers and others.	Total all classes.	Number.		Number of passengers and others.	Total all classes.	Number.		Number of passengers and others.	Total all classes.
	Accidents reported to the Indian Railways Act No. IX of 1907.	Other accidents.			Accidents reported to the Indian Railways Act No. IX of 1907.	Other accidents.			Accidents reported to the Indian Railways Act No. IX of 1907.	Other accidents.			Accidents reported to the Indian Railways Act No. IX of 1907.	Other accidents.		
1. Collisions between passenger trains or parts of passenger trains	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	4	4	8		1	1			1	1			1	1		
3. Collisions between goods trains or parts of goods trains	4	4			1	1			1	1			1	1		
4. Collisions between light engines	2	2			1	1			1	1			1	1		
5. Passenger trains or parts of passenger trains leaving the rails	13	13			3	3			1	1			1	1		
6. Goods trains or parts of goods trains, engines, &c., leaving the rails	1	1			18	18			2	2			1	1		
7. Trains or engines travelling in the wrong direction through points	13	13			2	2			1	1			1	1		
8. Trains running into stations or sidings at too high a speed	1	1			1	1			1	1			1	1		
9. Trains running over cattle on the line	77	77			1	1			1	1			1	1		
10. Ditto over obstructions on the line	11	11			1	1			1	1			1	1		
11. Trains running through gates at level-crossings	1	1														
12. The bursting of boilers of engines																
13(a). Ditto of tubes, &c., of engines																
13. The failure of machinery, springs, &c., of engines	64	64			20	20			17	17			8	8		
14. The failure of trees	2	2											1	1		
15. Ditto of wires																
16. Ditto of axles	3	3							1	1			1	1		
17. Ditto of brake apparatus																
18. Ditto of couplings	10	10			21	21			1	1			6	6		
19. Ditto of tunnels, bridges, viaducts, culverts, &c.																
20. Broken rails	2	2			5	5			1	1			1	1		
21. The shedding of portions of permanent-way																
22. Slips in cuttings or embankments					6	6										
23. Fire in trains	7	7			1	1										
24. Fire at stations, or involving injury to bridges or viaducts	5	5			1	1										
25. Other accidents	45	47			17	17			8	8			3	3		
TOTAL ALL CLASSES	26	274	320	15	131	145	1	1	1	1	1	3	7	76	81	4

(c) Includes the Haverhija, Tambora, and Ubbi Umbali-Kaka railways.

(b) Includes the following values:

ABSTRACT No. 3.—Accidents to trains, rolling-stock, permanent-way, etc., reported during the six months ending 30th June 1892, as having occurred on the several railways open for traffic

	XII. BANGALORE-MADRAS. (a)						XIII. SOUTHERN RAILWAYS. (b)						XIV. SEVEN LINES.						XV. MADRAS WARREN. (c)					
	Number.		Number of passengers and others.		Total all classes.		Number.		Number of passengers and others.		Total all classes.		Number.		Number of passengers and others.		Total all classes.		Number.		Number of passengers and others.		Total all classes.	
	Other accidents.	Total.	Killed.	Injured.	Killed.	Injured.	Accidents reported to Local Government under section 53 of Act No. IX of 1900.	Total.	Killed.	Injured.	Killed.	Injured.	Accidents reported to Local Government under section 53 of Act No. IX of 1900.	Total.	Killed.	Injured.	Killed.	Injured.	Accidents reported to Local Government under section 53 of Act No. IX of 1900.	Total.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains or parts of passenger trains	1	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	1	3	..	2	5	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Collisions between goods trains or parts of goods trains	..	5	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4. Collision between light engine	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5. Passenger train 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	..	61	84	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10. Ditto over obstructions on the line	..	8	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
11. Trains running through gates at level-crossings	..	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12. The inserting of boilers of engines	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12(a). Ditto of tubes, etc., of engines	..	16	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13. The failure of machinery, springs, etc., of engines	..	25	25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14. The failure of tyres	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15. Ditto of wheels	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16. Ditto of axle	1	6	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17. Ditto of brake apparatus	..	4	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18. Ditto of couplings	..	42	42	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
19. Ditto of tunnels, bridges, viaducts, culverts, etc.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
20. Broken rails	..	6	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
21. The flooding of portions of permanent-way	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22. Slide in cuttings or embankments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
23. Fire in trains	..	4	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
24. Fire at stations, or involving injury to bridges or viaducts	..	4	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
25. Other accidents	..	7	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	3	325	328	8	8	8	5	1	403	405	1	1	..	..	..	..	..	..	..	..	..	..	..	..
TOTAL ALL CLASSES																								

(a) Includes the Gerhart's Mebane railway.

(b) Includes the Mysore and Kullippar railways.

(c) Not postagens but carimões.

(d) Of these two were not passengers.

(c) Includes the American-Pakistan, Bhopal-Bhilai, and Jammu and Kashmir railways.

ABSTRACT No. 3.—ACCIDENTS TO TRAINS, ROLLING-STOCK, PERMANENT-WAY, etc., reported during the six months ending 30th June 1892, 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—continued.

	XXI. OPEN AND NARROW-GAUGE.					XXII. BROAD-GAUGE. (a)					XXIII. BROAD-GAUGE. (b)					XXIV. BROAD-GAUGE.				
	Number.	Number of passengers and others.	Number of servants.	Total all classes.	Other accidents.	Number.	Number of passengers and others.	Number of servants.	Total all classes.	Other accidents.	Number.	Number of passengers and others.	Number of servants.	Total all classes.	Other accidents.	Number.	Number of passengers and others.	Number of servants.	Total all classes.	Other accidents.
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. Trains running through gates at level-crossings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12. The bursting of boilers of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13(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 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	79	76	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

(a) Includes the Bregu Central and the narrow gauge railways.

(b) Includes the Tougou-Madagaly and the Ma Valley railways.

ABSTRACT No. 3.—ACCIDENTS TO TRAINS, ROLLING-STOCK, PERMANENT-WAY, etc., reported during the six months ending 30th June 1892, 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—continued.

	XXV. GRAND TRUNK RAILWAY.					XXVI. BOMBAY, BARODA AND CENTRAL RAILWAY.					XXVII. MADRAS.					XXVIII. DECCAN.				
	Number.	Number of passengers and others.	Number of servants.	Total all classes.	Other accidents.	Number.	Number of passengers and others.	Number of servants.	Total all classes.	Other accidents.	Number.	Number of passengers and others.	Number of servants.	Total all classes.	Other accidents.	Number.	Number of passengers and others.	Number of servants.	Total all classes.	Other accidents.
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. Trains running through gates at level-crossings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12. The bursting of boilers of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13(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 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	4	136	139	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

(a) Includes the Madras, Bombay, Baroda, and Central railways.

(b) Includes the Deccan railway.

ABSTRACT No. 3.—ACCIDENTS TO TRAINS, ROLLING STOCK, PERMANENT-WAY, etc., reported during the six months ending 30th June 1892, 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—continued.

	XII. RAILWAYS OPEN FOR TRAFFIC IN INDIA				XIII. DISABILITIES				XIV. DAMAGED RAILWAYS				XV. THE MILAN'S GAZETTE			
	Number of passengers and others.		Total all classes.		Number of passengers and others.		Total all classes.		Number of passengers and others.		Total all classes.		Number of passengers and others.		Total all classes.	
	Number.	Other accidents.	Number.	Other accidents.	Number.	Other accidents.	Number.	Other accidents.	Number.	Other accidents.	Number.	Other accidents.	Number.	Other accidents.	Number.	Other accidents.
1. Collisions between passenger trains or parts of passenger trains.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
2. Collisions between passenger trains and goods or material trains, engines and vehicles standing foul of the line.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
3. Collisions between goods trains or parts of goods trains.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
4. Collisions between light engines.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
5. Passenger trains or parts of passenger trains leaving the rails.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
6. Goods trains or parts of goods trains, engines, etc., leaving the rails.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
7. Trains or engines travelling in the wrong direction through points.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
8. Trains running into stations or sidings at too high a speed.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
9. Trains running over cattle on the line.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
10. Ditto over obstructions on the line.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
11. Trains running through gates at level-crossings.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
12. The bursting of boilers of engines.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
13 (a). Ditto of tubes, etc., of engines.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
13. The failure of machinery, springs, etc., of engines.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
14. The failure of tyres.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
15. Ditto of wheels.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
16. Ditto of axle.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
17. Ditto of brake apparatus.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
18. Ditto of couplings.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
19. Ditto of tanks, bridges, viaducts, culverts, etc.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
20. Broken rails.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
21. The flooding of portions of permanent-way.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
22. Slips in cuttings or embankments.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
23. Fire in trains.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
24. Fire at stations or involving injury to bridges or viaducts.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
25. Other accidents.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
TOTAL ALL CLASSES.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1

(a) Includes the Mobilised Reserve (see Note on page 1).

(b) Not a passenger, but elephant driver.

(c) Includes the British station.

ABSTRACT No. 3.—ACCIDENTS TO TRAINS, ROLLING STOCK, PERMANENT-WAY, etc., reported during the six months ending 30th June 1892, 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—continued.

	XVI. THE GREAT EASTERN RAILWAY				XVII. THE GREAT EASTERN RAILWAY				XVIII. THE GREAT EASTERN RAILWAY				XIX. THE GREAT EASTERN RAILWAY			
	Number of passengers and others.		Total all classes.		Number of passengers and others.		Total all classes.		Number of passengers and others.		Total all classes.		Number of passengers and others.		Total all classes.	
	Number.	Other accidents.	Number.	Other accidents.	Number.	Other accidents.	Number.	Other accidents.	Number.	Other accidents.	Number.	Other accidents.	Number.	Other accidents.	Number.	Other accidents.
1. Collisions between passenger trains or parts of passenger trains.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
2. Collisions between passenger trains and goods or material trains, engines and vehicles standing foul of the line.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
3. Collisions between goods trains or parts of goods trains.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
4. Collisions between light engines.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
5. Passenger trains or parts of passenger trains leaving the rails.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
6. Goods trains or parts of goods trains, engines, etc., leaving the rails.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
7. Trains or engines travelling in the wrong direction through points.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
8. Trains running into stations or sidings at too high a speed.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
9. Trains running over cattle on the line.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
10. Ditto over obstructions on the line.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
11. Trains running through gates at level-crossings.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
12. The bursting of boilers of engines.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
12 (a). Ditto of tubes, etc., of engines.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
13. The failure of machinery, springs, etc., of engines.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
14. The failure of tyres.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
15. Ditto of wheels.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
16. Ditto of axle.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
17. Ditto of brake apparatus.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
18. Ditto of couplings.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
19. Ditto of tanks, bridges, viaducts, culverts, etc.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
20. Broken rails.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
21. The flooding of portions of permanent-way.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
22. Slips in cuttings or embankments.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
23. Fire in trains.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
24. Fire at stations or involving injury to bridges or viaducts.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
25. Other accidents.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1
TOTAL ALL CLASSES.	1	23	24	1	1	23	24	1	1	23	24	1	1	23	24	1

TOTAL ALL CLASSES.

ABSTRACT No. 4.

ACCIDENTS to TRAINS, ROLLING-STOCK, PERMANENT-WAY, etc., on the several RAILWAYS open for TRAFFIC in INDIA, reported during the SIX MONTHS ending the 30th June 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.

	TOTAL.							
	Number.			Number of passengers and others.		Number of servants.		Total all classes.
	Accidents reported to Local Governments under section 63 of the Indian Railways Act No. IX of 1890.	Other accidents.	Total.	Killed.	Injured.	Killed.	Injured.	Total all classes.
1. Collisions between passenger trains or parts of passenger trains	3	1	4	3	...	...	...	3
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	12	22	34	...	17	5	4	21
3. Collisions between goods trains or parts of goods trains	9	39	48	...	...	...	9	9
4. Collisions between light engines	2	30	32	...	...	...	...	...
5. Passenger trains or parts of passenger trains leaving the rails	21	23	44	1	2	...	...	1
6. Goods trains or parts of goods trains, engines, etc., leaving the rails	14	193	207	...	...	1	2	1
7. Trains or engines travelling in the wrong direction through points	2	39	41	...	...	1	2	1
8. Trains running into stations or sidings at too high a speed	...	3	3	...	...	...	...	...
9. Trains running over cattle on the line	4	1,146	1,150	1(a)	...	8	7	9
10. Ditto over obstructions on the line	2	60	62	1(a)	2(b)	...	2	1
11. Ditto through gates at level-crossings	...	37	37	...	...	...	...	1
12. The bursting of boilers of engines	...	...	...	...	...	...	...	...
12(a). Ditto of tubes, etc., of engines	...	52	52	...	...	...	...	...
13. The failure of machinery, springs, etc., of engines	...	245	245	...	...	...	...	...
14. Ditto of tyres	...	8	8	...	...	...	...	...
15. Ditto of wheels	...	2	2	...	...	...	...	...
16. Ditto of axles	4	31	35	...	...	...	...	...
17. Ditto of brake apparatus	1	5	6	...	14	...	...	...
18. Ditto of couplings	1	129	130	...	...	...	...	14
19. Ditto of tunnels, bridges, viaducts, culverts, etc.	1	...	1	...	...	...	...	...
20. Broken rails	...	27	27	...	...	...	...	...
21. The flooding of portions of permanent-way	4	8	12	...	...	...	...	...
22. Slips in cuttings or embankments	6	8	14	...	...	...	...	...
23. Fire in trains	2	122	124	1	6	...	...	1
24. Fire at stations, or involving injury to bridges or viaducts	...	36	36	...	...	...	...	6
25. Other accidents	6	137	143	...	...	...	3	3
TOTAL ALL CLASSES	94	2,406	2,500	7(c)	31(c)	16	29	23
Mean mileage worked	...	...	17,608	...	...	...	...	...
Number of servants employed	...	...	175,454	...	...	...	...	...
Train-mileage of all descriptions	...	...	33,813,765	...	...	...	...	...
Number of passengers carried	...	...	60,898,728	...	...	...	...	...
Passenger-mileage	...	...	2,798,632,255	...	...	...	...	...
Per mile open—	...	...	...	...	...	...	...	...
Train-mileage of all descriptions	...	...	1,921	...	...	...	...	...
Number of passengers carried	...	...	3,460	...	...	...	...	...
Passenger-mileage	...	...	158,995	...	...	...	...	...
Total passengers—	...	...	...	...	...	...	...	...
Killed per million of passengers	...	...	...	...	...	...	...	0.082
Injured per ditto ditto	...	...	...	...	...	...	...	0.640
Killed per million of passenger-miles	...	...	...	...	...	...	...	0.002
Injured per ditto ditto	...	...	...	...	...	...	...	0.014

(a) Not a passenger.

(b) Not passengers, but cartmen.

(c) Of these two were not passengers.

APPENDIX.

Statement showing for the six months ending 30th June 1892 all cases in which the continuous automatic brakes failed to act when required to be brought into action or caused delay in the working of trains.

1	2	3	4	5	6
Serial No.	Railway.	Name or description of brakes which failed or caused delay in the instance specified in column 3.	Date of failure.	Instances under the three following heads separately, of:— (i) Failure or partial failure to act when required in case of an accident to a train, or a collision between trains being imminent. (ii) Failure or partial failure to act under ordinary circumstances to stop a train when required. (iii) Delay in the working of trains in consequence of defects in, or improper action of, the brakes, distinguishing whether they arose from neglect or lapse of maintenance of servants, or failure of machinery or material.	Number of miles run by trains fitted with such description of continuous automatic brake.
XIX	STANDARD GAUGE. State lines worked by the State. North Western	Automatic vacuum	11th January 1892	(iii) Failure of material.—Engine No. 819L working No. 63 up goods train from Kotri to Mithan was disabled owing to a hole having worn through the injector exhaust pipe.	Mileage not recorded as the vehicles do not run continuously on trains fitted throughout with the brake.
			31st January 1892	(iii) Failure of material.—Tender vacuum brake cylinder bracket rivets of engine No. 219L of No. 85 up stone train found slackened.	
			4th February 1892	(iii) Failure of material.—Iron washer inside of coupling hose brake-van No. 2293 with No. 2 down Calcutta mail train found broken.	
			13th May 1892	(iii) Failure of material.—Tender brake cylinder of engine No. 249L of No. 20 down mixed train found broken; no delay. Due to defect in design of brackets working hose, now remedied.	
			...	No failure or delay	
XXII	Eastern Bengal	...	...	...	48,824
XXXV	Line worked by Guaranteed Company. Great Indian Peninsula	Continuous automatic vacuum.	13th January 1892	(iii) Neglect of servants.—10 minutes delay to No. 154 up passenger train at Poona in replacing a coupling washer of brake-van No. 1300 which had become detached through careless uncoupling.	37,182
			8th March 1892	(ii) Failure of material.—Small India rubber pipe leading to cylinder of brake-van No. 357 on No. 67 down passenger train parted on journey; no delay.	
			18th March 1892	(ii) Driver of No. 75 down passenger train over-shot Masjid station platform by engine tender and 2 vehicles, due, it is believed, to some water having accumulated in the engine and tender cylinders and train pipe; 4 minutes delay in examining the train.	
			31st March 1892	(iii) Failure of machinery.—3 minutes lost with No. 29 down passenger train owing to brake rigging of carriage No. 800 getting out of order and causing the wheels to skid.	
			3rd May 1892	(iii) Failure of machinery.—7 minutes delay at Karjat station in detaching 3rd class carriage No. 720, the piston rod of which had jammed in the bush.	
			20th June 1892	(iii) Failure of machinery.—22 minutes lost on journey with No. 162 up passenger train owing to a rolling ring of the brake cylinder of 3rd class carriage No. 810 having become twisted and jammed so that the brake could not be released.	44,132

No. 77 R. Stat.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY STATISTICS.

Simla, the 13th March 1893.

Returns of accidents on Indian railways for the six months ending the 30th June 1892.

Read again—

Public Works Department Resolution No. 3 R. T., dated the 5th January 1891.

" " " Order No. 12 R. Stat., dated the 21st January 1892.

Read also—

The following note by the Director General of Railways, No. 16 Stat., dated the 13th February 1893, with abstract returns of accidents to trains, &c., on the open lines of railway in India for the six months ending the 30th June 1892.

The following summary gives the total number of accidents to trains, Summary of accidents to rolling stock, permanent-way, &c., for the six months ending the 30th June 1892, distributed under the classification adopted in abstract No. 4 of the returns :

		SIX MONTHS ENDING THE 30th JUNE 1892.										
Serial No.	CLASSES OF ACCIDENTS.	Average number of accidents during the corresponding periods of 1892 and 1891.	NUMBER.		NUMBER OF PASSENGERS AND OTHERS.		NUMBER OF SERVANTS.		TOTAL ALL CLASSES.			
			Accidents reported to Local Government under Section 5 of the Indian Railway Act, No. 1 of 1890.	Other Accidents.	Total.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
1	Collisions between passenger trains or parts of passenger trains	4	3	1	4	3	...	...	...	3	...	
2	Collisions between passenger trains and goods or omnibus trains, engines and vehicles standing out of the line	25	12	22	32	...	17	5	4	5	21	
3	Collisions between goods trains or parts of goods trains	21	9	21	41	...	...	...	9	...	9	
4	Collisions between light engines	14	2	20	32	...	...	...	...	...	...	
5	Passenger trains or parts of passenger trains leaving the rails	35	21	23	44	1	2	...	...	1	2	
6	Goods trains or parts of goods trains, engines, &c., leaving the rails	116	15	103	207	...	...	1	2	1	2	
7	Trains or engines travelling in the wrong direction through points	34	2	32	41	...	...	1	2	1	2	
8	Trains running into stations or sidings at too high a speed	3	...	3	6	...	...	...	...	...	...	
9	Trains running over cattle on the line	279	4	1,175	1,179	(a) 1	...	8	7	9	7	
10	Trains running over obstructions on the line	89	2	69	62	(a) 1	16	2	...	1	4	
11	Trains running through gates at level crossings	33	...	37	37	...	...	1	...	1	...	
12	The bursting of boilers of engines	...	...	...	...	...	...	...	...	...	...	
13	The bursting of tubes, &c., of engines	72	...	52	52	...	...	...	...	...	...	
14	The failure of machinery, springs, &c., of engines	102	...	213	213	...	...	...	...	...	...	
15	The failure of tyres	5	...	8	3	...	...	...	...	...	...	
16	" " of wheels	1	...	2	2	...	...	...	...	...	...	
17	" " of axle	40	4	31	25	...	...	...	...	...	...	
18	" " of brake apparatus	3	1	3	6	...	13	...	...	...	11	
19	" " of couplings	175	1	129	129	...	...	...	...	...	...	
20	" " of tunnels, bridges, viaducts, and works, &c.	...	1	...	1	...	...	...	...	...	...	
21	Broken rails	20	...	17	27	...	...	...	...	...	...	
22	The flaking of portions of permanent-way	14	4	8	12	...	...	...	...	...	...	
23	Sinks in cuttings or embankments	13	6	8	14	...	...	...	...	...	...	
24	Trains in transit	119	2	122	121	1	6	...	...	1	6	
25	Injury at stations, or involving injury to bridges or viaducts	42	...	23	31	...	...	...	...	...	...	
26	Other accidents	119	6	157	141	...	...	...	3	...	3	
TOTAL FOR THE SIX MONTHS ENDING THE 30th JUNE 1892			...	92	2,303	2,300	(a) 7	(a) 41	16	29	23	70
TOTAL—Average of the corresponding period of 1892 and 1891			...	...	2,175	4	29	11	31	15	53	50

(a) Not a passenger.
(b) Not passengers but cartmen.
(c) Of these, two were not passengers.

2. As compared with the average of the two corresponding periods of 1890 and 1891, the number of accidents to trains, rolling stock, permanent-way, &c., during the six months ending the 30th June 1892, shows an increase of 325 or of 14.91 per cent., with an increase of 1,114.89 miles or of 6.76 per cent. in the mean mileage worked, and of 3,304,856 miles or of 10.83 per cent. in the train-mileage run.

3. The chief variations occurred under "Collisions between light engines" 22 against 14; "Goods trains or parts of goods trains, engines, &c., leaving the rails," 297 against 146; "Trains running over cattle on the line," 1,150 against 970; "Trains running over obstructions on the line," 89; "The bursting of tubes, &c., of engines," 52 against 72; "The failure of machinery, springs, &c., of engines," 248 against 192; "The failure of couplings," 130 against 106; and "Other accidents," 143 against 119.

4. The increase under "Collisions between light engines," was chiefly due to the numbers recorded on the East Indian and North Western railways having risen from 4 to 14 and from 2 to 7 respectively.

5. "Goods trains or parts of goods trains, engines, &c., leaving the rails" showed an increase of 61 accidents. The chief variations were increases of 26 on the South Indian railway, of 22 on the East Indian railway and of 14 on the Burma state railway and a decrease of 11 each on the Eastern Bengal state railway and the Bengal and North Western railway including the Tirhoot section.

6. The number of cattle accidents was largest on the Southern Mahratta railway, viz., 337; next to that line comes the South Indian railway with 144; then the Rajputana-Malwa state railway with 84; the East Indian railway with 77; the Eastern Bengal state railway with 84; the East Indian railway with 62; the North Western railway with 74; the Oudh and Rohil-railway with 57.

As compared with the average of the corresponding periods of the two previous years, the chief increases occurred on the Southern Mahratta and South Indian railways, viz., 115 and 32 accidents respectively.

In relation to train-mileage run the number was highest on the Southern Mahratta railway, which gave an average of 1 accident in 3,599 train-miles, the Dibru-Sadiya railway coming next with an average of 1 in 4,031; then the Jorhat, the Nizam's Guaranteed State, the South Indian and the Eastern Bengal state railways with averages of 1 in 5,860, 1 in 7,300, 1 in 10,926 and 1 in 21,559, respectively. The lowest number recorded relatively to train-mileage run was on the Bombay, Baroda and Central India railway, viz., 1 in 295,086; the Great Indian Peninsula railway, average of 1 in 137,924; then the North Western railway coming next with an average of 1 in 69,613, the Burma state railway with 1 in 73,651, 56,377, and the Gackwar's Dahdoi railway with 1 in 52,000.

7. The decrease of 27 accidents under "Trains running over obstructions on the line," was mainly due to there having been 9 less on the Eastern Bengal state railway, 6 less on the Rajputana-Malwa state railway, 6 less on the Southern Mahratta railway and 5 less on the North Western railway.

8. Under "The bursting of tubes, &c., of engines," there was a decrease of 20 accidents, with a decrease of 16 on the South Indian railway alone.

9. The number of accidents from "The failure of machinery, springs, &c., of engines," was more by 56. The principal variations were increases of 59 on the East Indian railway, of 19 on the North Western railway and of 14 on the Rajputana-Malwa state railway, and decreases of 25 on the Nizam's Guaranteed State railway and of 15 on the South Indian railway.

10. Under "The failure of couplings" the accidents numbered 130 against 106, of which 42 against 22 took place on the Rajputana-Malwa state railway alone.

11. The cases recorded under the head "Other accidents" increased chiefly on the East Indian railway, viz., 47 against 10, on the Eastern Bengal state railway, 25 against 7 and on the Bengal-Nagpur railway, 17 against 7; and decreased mainly on the Bombay, Baroda and Central India railway, viz., 1 against 20, and on the South Indian and the Burma state railways, nil against 8.

12. The increase under "Passenger trains or parts of passenger trains leaving the rails," was chiefly owing to the numbers recorded on the East Indian railway having been 17 against 1.

13. 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 the average of the corresponding periods of 1890 and 1891, in the case of passengers, 27 killed and 79 injured, against 31 killed and 96 injured, and, in the case of servants, 95 killed and 302 injured, against 80 killed and 237 injured. (For details, *vide* abstract No. 2.)

14. The total casualties to persons from all causes, including trespassers, cases of suicide, &c., were 305 killed and 509 injured, against 289 killed and 434 injured, the average of the corresponding periods of the two preceding years. (For details, *vide* abstract No. 2.)

15. In addition to the above, 55 persons were reported to have been killed and 92 injured in yards, work-hops, &c., and 606 persons to have died in carriages and at stations from causes unconnected with the working of trains.

16. A statement is appended to the abstract return of accidents showing, for the six months ending the 30th June 1892, all cases in which the continuous automatic brakes failed to act when required to be brought into action or caused delay in the working of trains.

17. The accidents, for the second quarter of 1892, are dealt with in the following note.

Note on accidents for the 2nd 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 2nd quarter of 1892.	PASSENGERS AND OTHERS.		SERVANTS.		TOTAL.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
East Indian	1	—	8	—	—	—	8
Indian Midland	1	—	—	—	2	—	2
Bengal and North Western	1	—	—	5	7	5	7
Rajputana-Malwa	1	—	—	—	1	—	1
South Indian	3	1	8	1	—	2	8
North Western	1	—	—	—	1	—	1
Eastern Bengal	2	—	3	—	1	—	4
Great Indian Peninsula	2	—	—	—	4	—	4
Bombay, Baroda and Central India	1	—	14	—	—	—	14
Dibru-Sadiya	1	1	—	—	—	1	—
TOTAL	—	2	23	9	16	11	49
Average of the two corresponding quarters of 1890 and 1891	—	2	18	6	21	8	39

2. *East Indian railway.*—On the 25th April 1892, a down goods train collided with an up mixed while the latter was standing at the Maharajpur

4
station, owing to the points not having been properly set. The engines of both the trains were damaged and eight passengers slightly injured. The Station Master and the Assistant Station Master who were in fault were prosecuted.

3. *Indian Midland railway.*—On the 3rd April 1892, a collision took place at Barkhera on the Bhopal-Itarsi state railway between a down special and an up fast special, owing to the latter train having been shunted beyond the south facing points while the former was entering the station without due caution. Two firemen were slightly injured and the permanent-way and rolling stock damaged. The staff at fault were departmentally punished.

4. *Bengal and North Western railway.*—On the 12th May 1892, a bullock was run over by the engine of a ballast train at mileage 8 between Maijapur and Gonda Kacheri, and the result was the derailment of 16 trucks. Eight coolies were killed and seven seriously injured.

5. *Rajputana-Malwa state railway.*—On the 15th May 1892, at Alhaur the rear portion of a shunting train, which had been uncoupled in shunting, collided with the front portion owing to the engine having been stopped by danger signals. A khalsi was injured.

6. *South Indian railway.*—On the 8th April 1892, a bullock cart was struck by the cow-catcher of an engine at a level-crossing between Kalayapur and Kannamangalam stations. Two men, who were on the cart, were slightly injured.

On the 18th April 1892, the engine of a mixed train ran through a level-crossing gate between Venkatachellam Chattram and Nellore stations, owing to the gates not having been properly closed before the arrival of the train. The gateman, in trying to close the gates, was struck by the engine and killed.

On the 8th June 1892, the roof of a third class carriage was found on fire between Tanjore and Bülair stations and some of the passengers took fright and jumped out. One passenger was killed and six injured.

7. *North Western railway.*—On the 31st May 1892, at mileage 596-14 near Fuller's Camp catch siding, a collision took place between a trolley occupied by the Executive Engineer, Quetta, and a Sub-Engineer, and another trolley occupied by the Pay Clerk. The Sub-Engineer in jumping off the trolley broke his leg.

8. *Eastern Bengal state railway.*—On the 12th April 1892, owing to a heavy storm, a lampman was wounded in the oil godown at Katihar by the fall of some corrugated sheets.

On the 31st May 1892, an up mixed train collided with a down mixed train, which was standing in the Dinagpore yard. The accident was due to the carelessness of the staff. Three passengers were slightly injured.

9. *Great Indian Peninsula railway.*—On the 30th April 1892, at Dhāman-gaon, one loaded and four empty wagons which had been set in motion by a storm, collided with an empty van which was being repaired at that station. Three coolies, who were working at the van, were slightly injured.

On the 24th May 1892, the wheels of an unprotected light trolley were run over by a down mail at mileage 313-15 between Ghāngāpur and Gulbarga stations. The Time-keeper, in jumping off the trolley, was seriously injured.

10. *Bombay, Baroda and Central India railway.*—On the 21st May 1892, a collision took place at Nadiad between an up mail and an up special goods owing to the failure of a vacuum brake. One passenger was seriously injured and thirteen others slightly.

11. *Dibru-Sadiya railway.*—On the 2nd June 1892, an elephant and a mahout were run over and killed by an up goods at mile 20 between Digboi and Diling bridge stations. There was also some damage to the rolling stock.

5
ORDER.—Ordered, that the above note, with the abstract returns, be communicated for information to the Local Governments and Administrations, and to the officers noted in the margin.

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 Baluchistan.
The Director General of Railways.
The Consulting Engineers to the Government of India for Railways, Calcutta, Central Division, Lucknow, and Assam.

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

Ordered further, that the note, with the abstract returns, be published in the supplement to the *Gazette of India*.

J. L. K. V. M.

Under Secretary.

Documents accompanying.

Abstract returns of accidents for the six months ending the 30th June 1892. (Original returned by the Secretary to the Government of Madras)

To.
The Secretary to the Government of Madras
Public Works Department
By: H. M. M. S.

will follow
from Simla

No. 1852 R. 20-11-90
- 372 R. 10-2-91
- 1001-2 R. 1-5-91 ✓
- 1223-4 R. 27-5-91 ✓
- 1822 R. 8-8-91 ✓
- 2308 R. 15-10-91 ✓
- 473 R. 20-2-92 ✓
- 2868 R. 30-11-92 ✓

405.C
Encls (395C)
Recd: 27.3.93

B. No. 721 R. 2/17 April 93.

Kis
saps

Communicated to
the Consulting Engineer for
Railways for information.

B.

No. 721 R. 2/17-4-93.

File R
6/4 14/4

The Consulting Eng. Rys.

2/19/4
2/19/4
H. 7/4 R. 12/4

Enclosure to P. W. D. No. 172 R., Stat., dated the 13th May 1893.

INDIAN RAILWAYS.

ABSTRACT RETURNS OF ACCIDENTS DURING THE NINE
MONTHS ENDING 30TH SEPTEMBER 1892.

ABSTRACT No. 1.

GENERAL TOTAL.

NUMBER of PERSONS reported, during the NINE MONTHS ending the 30th September 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	41	
By accidents from other causes, including accidents from their own want of caution or misconduct	43	112	
SERVANTS:—			
From accidents to trains, rolling-stock, permanent-way, etc.	17	36	
By accidents from other causes, including accidents from their own want of caution or misconduct	141	454	
OTHER PERSONS:—			
Whilst passing over railways at level-crossings	19	12	
Trespassers	195	63	
Suicides	38	4	
Miscellaneous, not included in either of the above	5	8	
TOTAL	468	750	

ABSTRACT

NUMBERS OF PERSONS reported, during the NINE MONTHS ending 30th September 1892, as KILLED or INJURED in INDIA by the RAILWAY SERVANTS, and OTHER PERSONS, and classifying, as far as practicable,

[illegible][illegible]

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]

(g) includes the M. Valley State railway,
(h) " the Warden Coal, Wood-Mannad, Khamgaon and Amrooti railways,
(i) " the Gachwar Palled railway,
(j) " the Jachnow-Hareilly section,
(k) " the B-grade extension.

ABSTRACT No. 3.

ACCIDENTS TO TRAINS, ROLLING-STOCK, PERMANENT-WAY, ETC., reported during the NINE MONTHS ending 30th September 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.

1. Collisions between passenger trains or parts of passenger trains.	Railways (a).				Indian Railways (b).				Railways (c).			
	Number of passenger trains or parts of passenger trains.		Number of goods or mineral trains, engines and vehicles standing foul of the line.		Number of passenger trains or parts of passenger trains.		Number of goods or mineral trains, engines and vehicles standing foul of the line.		Number of passenger trains or parts of passenger trains.		Number of goods or mineral trains, engines and vehicles standing foul of the line.	
	No.	Total all classes.	No.	Total all classes.	No.	Total all classes.	No.	Total all classes.	No.	Total all classes.	No.	Total all classes.
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line.	3	2	4	8	1	1	2	2	1	1	2	2
3. Collisions between goods trains or parts of goods trains.	4	4	4	4	2	2	2	2	1	1	1	1
4. Collisions between light engines.	5	5	5	5	2	2	2	2	1	1	1	1
5. Passenger trains or parts of passenger trains leaving the rails.	6	12	12	12	2	2	2	2	1	1	1	1
6. Goods trains or parts of goods trains, engines, etc., leaving the rails.	7	15	15	15	2	2	2	2	1	1	1	1
7. Trains or engines travelling in the wrong direction through points.	8	1	1	1	1	1	1	1	1	1	1	1
8. Trains running into stations or sidings at too high a speed.	9	1	1	1	1	1	1	1	1	1	1	1
9. Trains running over cattle on the line.	10	1	1	1	1	1	1	1	1	1	1	1
10. Ditto over obstructions on the line.	11	1	1	1	1	1	1	1	1	1	1	1
11. Ditto through gates at level crossings.	12	1	1	1	1	1	1	1	1	1	1	1
12. The bursting of boilers of engines.	13	1	1	1	1	1	1	1	1	1	1	1
13. The failure of tubes, etc., of engines.	14	1	1	1	1	1	1	1	1	1	1	1
14. The failure of machinery, springs, etc., of engines.	15	1	1	1	1	1	1	1	1	1	1	1
15. The failure of wheels.	16	1	1	1	1	1	1	1	1	1	1	1
16. Ditto of axle.	17	1	1	1	1	1	1	1	1	1	1	1
17. Ditto of brake apparatus.	18	1	1	1	1	1	1	1	1	1	1	1
18. Ditto of couplings.	19	1	1	1	1	1	1	1	1	1	1	1
19. Ditto of tenders, bridges, viaducts, culverts, etc.	20	1	1	1	1	1	1	1	1	1	1	1
20. Broken rails.	21	1	1	1	1	1	1	1	1	1	1	1
21. The flooding of portions of permanent-way.	22	1	1	1	1	1	1	1	1	1	1	1
22. Slip in cuttings or embankments.	23	1	1	1	1	1	1	1	1	1	1	1
23. Fire in trains.	24	1	1	1	1	1	1	1	1	1	1	1
24. Fire at stations, or involving injury to bridges or viaducts.	25	1	1	1	1	1	1	1	1	1	1	1
25. Other accidents.	26	1	1	1	1	1	1	1	1	1	1	1
TOTAL ALL CLASSES.	30	365,346	30	365,346	30	365,346	30	365,346	30	365,346	30	365,346

(a) Includes the Poonah, Tondiarpet, and Delhi-Una-Bikaner railways.

(b) Includes the Mysore and the Kolar railways.

(c) Includes the Mysore and the Kolar railways.

ABSTRACT No. 3.—ACCIDENTS TO TRAINS, ROLLING-STOCK, PERMANENT-WAY, ETC., reported during the NINE MONTHS ending 30th September 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.

1. Collisions between passenger trains or parts of passenger trains.	Railways (a).				Indian Railways (b).				Railways (c).			
	Number of passenger trains or parts of passenger trains.		Number of goods or mineral trains, engines and vehicles standing foul of the line.		Number of passenger trains or parts of passenger trains.		Number of goods or mineral trains, engines and vehicles standing foul of the line.		Number of passenger trains or parts of passenger trains.		Number of goods or mineral trains, engines and vehicles standing foul of the line.	
	No.	Total all classes.	No.	Total all classes.	No.	Total all classes.	No.	Total all classes.	No.	Total all classes.	No.	Total all classes.
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line.	3	2	4	8	1	1	2	2	1	1	2	2
3. Collisions between goods trains or parts of goods trains.	4	4	4	4	2	2	2	2	1	1	1	1
4. Collisions between light engines.	5	5	5	5	2	2	2	2	1	1	1	1
5. Passenger trains or parts of passenger trains leaving the rails.	6	12	12	12	2	2	2	2	1	1	1	1
6. Goods trains or parts of goods trains, engines, etc., leaving the rails.	7	15	15	15	2	2	2	2	1	1	1	1
7. Trains or engines travelling in the wrong direction through points.	8	1	1	1	1	1	1	1	1	1	1	1
8. Trains running into stations or sidings at too high a speed.	9	1	1	1	1	1	1	1	1	1	1	1
9. Trains running over cattle on the line.	10	1	1	1	1	1	1	1	1	1	1	1
10. Ditto over obstructions on the line.	11	1	1	1	1	1	1	1	1	1	1	1
11. Ditto through gates at level-crossings.	12	1	1	1	1	1	1	1	1	1	1	1
12. The bursting of boilers of engines.	13	1	1	1	1	1	1	1	1	1	1	1
13. The failure of tubes, etc., of engines.	14	1	1	1	1	1	1	1	1	1	1	1
14. The failure of machinery, springs, etc., of engines.	15	1	1	1	1	1	1	1	1	1	1	1
15. The failure of wheels.	16	1	1	1	1	1	1	1	1	1	1	1
16. Ditto of axle.	17	1	1	1	1	1	1	1	1	1	1	1
17. Ditto of brake apparatus.	18	1	1	1	1	1	1	1	1	1	1	1
18. Ditto of couplings.	19	1	1	1	1	1	1	1	1	1	1	1
19. Ditto of tenders, bridges, viaducts, culverts, etc.	20	1	1	1	1	1	1	1	1	1	1	1
20. Broken rails.	21	1	1	1	1	1	1	1	1	1	1	1
21. The flooding of portions of permanent-way.	22	1	1	1	1	1	1	1	1	1	1	1
22. Slip in cuttings or embankments.	23	1	1	1	1	1	1	1	1	1	1	1
23. Fire in trains.	24	1	1	1	1	1	1	1	1	1	1	1
24. Fire at stations, or involving injury to bridges or viaducts.	25	1	1	1	1	1	1	1	1	1	1	1
25. Other accidents.	26	1	1	1	1	1	1	1	1	1	1	1
TOTAL ALL CLASSES.	30	365,346	30	365,346	30	365,346	30	365,346	30	365,346	30	365,346

TOTAL ALL CLASSES

(a) Includes the Mysore and the Kolar railways.
(b) Includes the Mysore and the Kolar railways.
(c) Includes the Mysore and the Kolar railways.

XXX GENERAL	XXXIV JODHPUR				XXXV GUJARAT (Including Passenger)				XXXVI BOMBAY, BARODA, AND CANTONMENT (D)				XXXVII MYSORE			
	No.		Number of passengers and others		No.		Number of passengers and others		No.		Number of passengers and others		No.		Number of passengers and others	
	Total	Killed	Injured	Total all classes	Total	Killed	Injured	Total all classes	Total	Killed	Injured	Total all classes	Total	Killed	Injured	Total all classes
1. Collisions between passenger trains or parts of passenger trains	6	1	1	2	2	1	1	2	1	1	1	3	1	1	1	3
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
3. Collisions between goods trains or parts of goods trains	21	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
4. Collisions between light engines	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
5. Passenger trains or parts of passenger trains leaving the rails	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
6. Goods trains or parts of goods trains, engines, etc., leaving the rails	21	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
7. Trains or engines travelling in the wrong direction through points	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
8. Trains running into stations or sidings at too high a speed	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
9. Trains running over cattle on the line	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
10. Ditto over obstructions on the line	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
11. Ditto through gates at level-crossings	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
12. The bursting of boilers of engines	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
12(a). Ditto of tubes, etc., of engines	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
13. The failure of machinery, springs, etc., of engines	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
14. The failure of tyres	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
15. Ditto of wheels	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
16. Ditto of axles	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
17. Ditto of brake apparatus	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
18. Ditto of couplings	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
19. Ditto of tunnels, bridges, viaducts, etc.	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
20. Broken rails	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
21. The flooding of portions of permanent-way	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
22. Slip in cuttings or embankments	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
23. Fire in trains	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
24. Fire at stations, or involving injury to bridges or viaducts	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
25. Other accidents	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
TOTAL ALL CLASSES	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106

(a) Includes the Ma Valley State railway.

(b) Includes the Wadia, Coal, Dhool, Varnad, Khambhat and Amroli railways.

(c) Not a passenger.

XI DANESHWAR	XII BOMBAY, KANAR, COAST, AND CANTONMENT (D)				XIII GUJARAT (Including Passenger)				XIV DANESHWAR				XV THE NIAH GUJARATI (D)			
	No.		Number of passengers and others		No.		Number of passengers and others		No.		Number of passengers and others		No.		Number of passengers and others	
	Total	Killed	Injured	Total all classes	Total	Killed	Injured	Total all classes	Total	Killed	Injured	Total all classes	Total	Killed	Injured	Total all classes
1. Collisions between passenger trains or parts of passenger trains	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
3. Collisions between goods trains or parts of goods trains	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
4. Collisions between light engines	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
5. Passenger trains or parts of passenger trains leaving the rails	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
6. Goods trains or parts of goods trains, engines, etc., leaving the rails	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
7. Trains or engines travelling in the wrong direction through points	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
8. Trains running into stations or sidings at too high a speed	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
9. Trains running over cattle on the line	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
10. Ditto over obstructions on the line	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
11. Ditto through gates at level-crossings	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
12. The bursting of boilers of engines	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
12(a). Ditto of tubes, etc., of engines	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
13. The failure of machinery, springs, etc., of engines	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
14. The failure of tyres	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
15. Ditto of wheels	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
16. Ditto of axles	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
17. Ditto of brake apparatus	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
18. Ditto of couplings	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
19. Ditto of tunnels, bridges, viaducts, etc.	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
20. Broken rails	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
21. The flooding of portions of permanent-way	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
22. Slip in cuttings or embankments	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
23. Fire in trains	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
24. Fire at stations, or involving injury to bridges or viaducts	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
25. Other accidents	1	1	1	2	1	1	1	2	1	1	1	3	1	1	1	3
TOTAL ALL CLASSES	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17

(a) Includes the Lachoo-Bharilly section.

(b) Not a passenger.

(c) Includes the Barvalle extension.

No.	Total all classes.	Number of passengers and others.	Number of railway servants.	Total.	No.	Total all classes.	Number of passengers and others.	Number of railway servants.	Total.	No.	Total all classes.	Number of passengers and others.	Number of railway servants.	Total.	No.	Total all classes.	Number of passengers and others.	Number of railway servants.	Total.
1. Collisions between passenger trains or parts of passenger trains	4	1	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	13	27	40	...	17	5	4	5	21	...	...	...	...	...	...	...	...	...	...
3. Collisions between goods trains or parts of goods trains	9	50	59	...	9	...	...	...	9	...	...	...	...	...	...	...	...	...	...
4. Collisions between light engines	2	30	32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. Passenger trains or parts of passenger trains leaving the rails	27	54	81	1	2	...	1	1	3	...	...	...	...	...	...	...	...	...	...
6. Goods trains or parts of goods trains, engines, etc., leaving the rails	16	232	298	...	1	3	1	3	...	...	...	...	...	...	...	...	...	...	...
7. Trains or engines travelling in the wrong direction through points	5	51	56	...	1	4	1	4	...	...	...	...	...	...	...	...	...	...	...
8. Trains running into stations or sidings at too high a speed	5	3	8	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9. Trains running over cattle on the line	3	79	82	1(a)	2(b)	...	1	...	1	...	...	...	...	...	...	...	...	...	...
10. Ditto over obstructions on the line	...	45	45	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11. Ditto through gates at level-crossings	...	72	72	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12. The bursting of boilers of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12(a). The bursting of tubes, etc., of engines	...	338	338	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13. The failure of machinery, springs, etc., of engines	...	9	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14. The failure of tyres	...	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15. Ditto of wheels	5	34	39	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16. Ditto of axles	1	5	6	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17. Ditto of brake apparatus	1	164	165	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18. Ditto of couplings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19. Ditto of tunnels, bridges, viaducts, culverts, etc.	10	2	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20. Broken rails	39	80	119	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21. The flooding of portions of permanent-way	10	13	23	3	2	...	1	3	3	...	...	...	...	...	...	...	...	...	...
22. Slips in cuttings or embankments	2	135	137	1	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23. Fire in trains	...	41	41	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	7	154	161	...	3	...	...	...	3	...	...	...	...	...	...	...	...	...	...
25. Other accidents	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL ALL CLASSES	159	3,266	3,425	10(c)	43(c)	17	36	27	79										

9
ABSTRACT No. 4.
ACCIDENTS TO TRAINS, ROLLING-STOCK, PERMANENT-WAY, ETC., on the several RAILWAYS open for TRAFFIC in INDIA, reported during the NINE MONTHS ending 30th September 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.	Accidents reported to Local Governments under section 83 of the Indian Railways Act No. IX of 1890.	Other accidents.	Total.	NUMBER OF PASSENGERS AND OTHERS.		NUMBER OF SERVANTS.		TOTAL ALL CLASSES.	
				Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains or parts of passenger trains	4	1	5	3	...	...	...	3	...
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	13	27	40	...	17	5	4	5	21
3. Collisions between goods trains or parts of goods trains	9	50	59	...	...	...	9	...	9
4. Collisions between light engines	2	30	32	...	...	...	...	...	...
5. Passenger trains or parts of passenger trains leaving the rails	27	54	81	1	2	...	1	1	3
6. Goods trains or parts of goods trains, engines, etc., leaving the rails	16	232	298	...	...	1	3	1	3
7. Trains or engines travelling in the wrong direction through points	5	51	56	...	...	1	4	1	4
8. Trains running into stations or sidings at too high a speed	5	3	8	...	...	8	...	9	9
9. Trains running over cattle on the line	3	79	82	1(a)	2(b)	...	2	1	4
10. Ditto over obstructions on the line	...	45	45	...	...	1	...	1	...
11. Ditto through gates at level-crossings	...	72	72	...	...	...	...	...	...
12. The bursting of boilers of engines	...	...	...	...	...	...	...	...	...
12(a). The bursting of tubes, etc., of engines	...	338	338	...	...	...	...	...	...
13. The failure of machinery, springs, etc., of engines	...	9	9	...	...	...	...	...	...
14. The failure of tyres	...	4	4	...	...	...	...	...	...
15. Ditto of wheels	5	34	39	...	...	...	...	...	...
16. Ditto of axles	1	5	6	...	14	...	...	...	14
17. Ditto of brake apparatus	1	164	165	...	...	...	...	...	...
18. Ditto of couplings	...	...	...	...	...	...	...	...	...
19. Ditto of tunnels, bridges, viaducts, culverts, etc.	10	2	12	...	...	...	...	...	...
20. Broken rails	39	80	119	...	...	1	...	1	...
21. The flooding of portions of permanent-way	10	13	23	3	2	...	1	3	3
22. Slips in cuttings or embankments	2	135	137	1	6	...	...	1	6
23. Fire in trains	...	41	41	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	7	154	161	...	...	...	3	...	3
25. Other accidents	...	...	...	...	...	...	...	...	...
TOTAL ALL CLASSES	159	3,266	3,425	10(c)	43(c)	17	36	27	79

Mean mileage worked	17,620.96
Number of servants employed	175,170
Train-mileage of all descriptions	47,325,442
Number of passengers carried	88,561,163
Passenger-mileage	3,906,822,537
Per mile open—	
Train-mileage of all descriptions	2,686
Number of passengers carried	5,026
Passenger-mileage	221,715
Total passengers—	
Killed per million of passengers	0.090
Injured per ditto ditto	0.463
Killed per million of passenger-miles	0.002
Injured per ditto ditto	0.010

(a) Not a passenger.

(b) Not passengers but servants.

(c) Of these two were not passengers.

10/15/1893

No. 172 R. Stat.
GOVERNMENT OF INDIA.
PUBLIC WORKS DEPARTMENT.
RAILWAY STATISTICS.

Simla, the 13th May 1893.

Returns of accidents on Indian railways for the nine months ending
the 30th September 1892.

Read again—

Public Works Department Order No. 159 R. Stat., dated the 10th May 1892.

Read also—

The following note by the Director General of Railways, No. 165 Stat., dated the 3rd May 1893, with abstract returns of accidents to trains, &c., on the open lines of railway in India for the nine months ending the 30th September 1892.

The following summary gives the total number of accidents to trains, Summary of accidents to rolling stock, permanent-way, &c., for the nine months ending the 30th September 1892, distributed under the classification adopted in abstract No. 4 of the returns :

Serial No.	CLASSES OF ACCIDENTS.	NINE MONTHS ENDING THE 30th SEPTEMBER 1892.									
		NUMBER OF ACCIDENTS DURING THE CORRESPONDING NINE MONTHS OF 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 ...	3	7	10	4	1	5	3	...	...	...
2	Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line ...	15	29	44	13	27	40	...	17	5	4
3	Collisions between goods trains or parts of goods trains ...	13	75	88	9	30	39	...	...	...	9
4	Collisions between light engines ...	...	18	18	2	20	32	...	...	...	...
5	Passenger trains or parts of passenger trains leaving the rails ...	22	55	77	27	54	81	1	2	...	1
6	Goods trains or parts of goods trains, engines, &c., leaving the rails ...	15	206	221	16	262	298	...	...	1	3
7	Trains or engines travelling in the wrong direction through points ...	3	39	42	5	51	56	...	...	1	4
8	Trains running into stations or sidings at too high a speed ...	...	4	4	...	3	3	...	...	...	...
9	Trains running over cattle on the line ...	6	1,514	1,520	5	1,554	1,559	(a) 1	...	8	9
10	Trains running over obstructions on the line ...	11	129	140	3	79	82	(a) 1	(a) 2	...	2
11	Trains running through gates at level-crossings ...	2	49	51	...	45	45	...	...	1	...
12	The bursting of boilers of engines ...	...	...	...	...	...	...	...	...	...	...
12(a)	The bursting of tubes, &c., of engines ...	...	110	110	...	72	72	...	...	...	...
13	The failure of machinery, springs, &c., of engines ...	...	303	303	...	334	334	...	...	...	...
14	The failure of tyres ...	...	11	11	...	9	9	...	...	...	...
15	" " of wheels ...	...	5	5	...	4	4	...	...	...	...
16	" " of axles ...	2	39	41	...	34	39	...	...	...	...
17	" " of brake apparatus ...	...	1	1	...	5	6	...	14	...	14
18	" " of couplings ...	2	134	136	1	164	165	...	...	...	...
19	" " of tunnels, bridges, viaducts, culverts, &c. ...	...	5	5	19	2	19	...	...	...	...
20	Broken rails ...	...	37	37	...	78	79	...	...	...	...
21	The flooding of portions of permanent-way ...	16	34	50	...	119	119	...	...	...	...
22	Slips in cuttings or embankments ...	7	64	71	10	13	23	...	...	1	...
23	Fire in trains ...	5	131	136	2	135	137	...	...	...	...
24	Fire at stations, or involving injury to bridges or viaducts ...	3	56	59	...	41	41	...	...	...	...
25	Other accidents ...	9	181	190	7	154	161	...	...	3	...
TOTAL FOR THE NINE MONTHS ENDING THE 30th SEPTEMBER 1892		...	...	...	150	3,266	3,425	(b) 10	(b) 43	17	36
TOTAL for the corresponding period of 1891		...	...	...	134	3,235	3,369	(c) 9	(d) 52	16	44

(a) Not passengers.
(b) Of these, two were not passengers.
(c) Of these, seven were not passengers.
(d) Of these, eleven were not passengers.

2. As compared with the corresponding period of 1891, the number of accidents to trains, rolling stock, permanent-way, &c., during the nine months ending the 30th September 1892, shows an increase of 56 or of 1.86 per cent., with an increase of 613.46 miles or of 3.81 per cent. in the mean mileage worked, and of 535,238 miles or of 1.19 per cent. in the train-mileage run.

3. The chief variations occurred under "Collisions between goods trains or parts of goods trains," 59 against 88; "Collisions between light engines," 32 against 18; "Goods trains or parts of goods trains, engines, &c., leaving the rails," 298 against 221; "Trains or engines travelling in the wrong direction through points," 56 against 42; "Trains running over cattle on the line," 1,559 against 1,520; "Trains running over obstructions on the line," 82 against 140; "The bursting of tubes, &c., of engines," 72 against 110; "The failure of machinery, springs, &c., of engines," 338 against 302; "The failure of couplings," 165 against 136; "The flooding of portions of permanent-way," 119 against 50; "Slips in cuttings or embankments," 23 against 71; and "Other accidents," 161 against 190.

4. Under "Collisions between goods trains or parts of goods trains," there was a decrease of 29 accidents, viz., 4 under "Serious" and 25 under "Minor." The decrease under "Serious" was chiefly due to the number on the Great Indian Peninsula railway having fallen from 3 to nil, while that under "Minor" was due to a reduction of 7 each on the Rajputana-Malwa state and the North Western railways, and of 6 on the Eastern Bengal state railway.

5. The increase under "Collisions between light engines" was chiefly due to the numbers recorded on the East Indian and the North Western railways having risen from 6 to 14 and from 3 to 7 respectively. The increase of 8 on the East Indian railway was made up of 2 under "Serious" and 6 under "Minor."

6. "Goods trains or parts of goods trains, engines, &c., leaving the rails" showed an increase of 77 accidents. The chief variations were increases of 44 on the South Indian railway, of 32 on the East Indian railway, and of 15 on the Bengal and North-Western railway, including the Tirhoot section, and a decrease of 17 on the Eastern Bengal state railway.

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 3 to 15.

8. The number of cattle accidents was largest on the Southern Mahratta railway, viz., 390; next to that line comes the South Indian railway with 205; then the Rajputana-Malwa state railway with 141; the Eastern Bengal state railway with 110; the North Western railway with 101; the East Indian railway with 99; the Oudh and Rohilkhand railway with 89; and the Madras railway with 72.

As compared with the corresponding period of the previous year, the chief variations were an increase of 78 on the Southern Mahratta railway and a decrease of 39 on the North Western railway.

In relation to train-mileage run, the number was highest on the Southern Mahratta railway, which gave an average of 1 accident in 4,509 train-miles, the Dibru-Sadiya railway coming next with an average of 1 in 5,253; then the Nizam's Guaranteed State, the Jorhāt, the South Indian and the Rohilkhand and Kumaon railways with averages of 1 in 7,124, 1 in 8,408, 1 in 11,067 and 1 in 21,861, respectively. The lowest number recorded relatively to train-mileage run was on the Bombay, Baroda and Central India railway, viz., 1 in 197,546; the Great Indian Peninsula railway coming next with an average of 1 in 119,113; then the East Indian railway with 1 in 77,449; the Gaekwar's Dabhoi railway with 1 in 67,685; the North Western railway with 1 in 61,776; and the Burma state railway with 1 in 48,519.

9. The decrease of 58 accidents under "Trains running over obstructions on the line," was mainly due to there having been 33 less on the Eastern Bengal state railway, 8 less on the Rajputana-Malwa state railway, and 7 less on the North Western railway.

10. Under "The bursting of tubes, &c., of engines," there was a noticeable decrease of 29 accidents on the South Indian railway.

11. The number of accidents from "The failure of machinery, springs, &c., of engines" increased mainly on the East Indian railway, viz., 73 against 16; on the Rajputana-Malwa railway, 28 against 14; and on the North Western railway, 74 against 60; and decreased on the Nizam's Guaranteed State railway, 4 against 34; and on the South Indian railway, 3 against 26.

12. Accidents from "The failure of couplings" were most numerous on the Rajputana-Malwa state railway, which showed an increase of 24 out of a total increase of 29.

13. Under the head "The flooding of portions of permanent-way," there was an increase of 69, of which 23 cases are recorded under "Serious" and 46 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 Bhavnagar-Gondal-Junágarh-Porbandar railways; while under "Minor" the increases were chiefly contributed by the Jodhpore-Bickaneer, the Rajputana-Malwa state, the Southern Mahratta and the North Western railways, on which the numbers rose from 3 to 19, 3 to 15, 4 to 12 and 6 to 12, respectively.

14. Under "Slips in cuttings or embankments," there was a decrease of 48 accidents, made up of an increase of 3 under "Serious" and a decrease of 51 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 in the corresponding period of 1891; while the decrease under "Minor" was owing principally to the numbers recorded on the Bengal-Nágpur, Great Indian Peninsula and North Western railways having fallen off from 27 to 3, 11 to nil and 17 to 7, respectively.

15. Under "Fire at stations, or involving injury to bridges or viaducts," the accidents numbered 41 against 59, of which 12 against 27 took place on the Eastern Bengal state railway alone.

16. The cases recorded under the head "Other accidents" decreased chiefly on the North Western railway, 31 against 54; on the Burma state railway, nil against 15; on the South Indian railway, nil against 13, and on the Bombay, Baroda and Central India railway, 4 against 16; but increased principally on the East Indian railway, viz., 54 against 18.

17. 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 the corresponding period of 1891, in the case of passengers, 43 killed and 112 injured against 52 killed and 160 injured, and, in the case of servants, 141 killed and 151 injured against 121 killed and 398 injured. (For details, vide abstract No. 2.)

18. The total casualties to persons from all causes, including trespassers, cases of suicide, &c., were 465 killed and 730 injured against 455 killed and 724 injured in the corresponding period of 1891. (For details, vide abstract No. 2.)

19. In addition to the above, 71 persons were reported to have been killed and 154 injured in yards, workshops, &c., and 749 persons to have died in carriages and at stations from causes unconnected with the working of trains.

20. The accidents for the 3rd quarter of 1892 are dealt with in the following note.

Note on accidents for the 3rd 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 3rd quarter of 1892.	PASSENGERS AND OTHERS.		SERVANTS.		TOTAL.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Bengal-Nagpur	1	3	2	...	1	3	3
Rajputana-Malwa	1	...	...	...	1	...	1
North Western	1	...	...	1	...	1	...
Eastern Bengal	1	...	...	...	2	...	2
Great Indian Peninsula	1	...	...	...	1	...	1
Madras	1	...	...	...	2	...	2
TOTAL	...	3	2	1	7	4	9
Total of the corresponding quarter of 1891	...	1	6	1	6	2	12

2. *Bengal-Nagpur railway.*—On the 10th August 1892, the engine and six vehicles of a down mail train were derailed at mileage 67½ from Katni, owing to a small bank having been washed away by heavy rain. Three passengers were killed and two passengers and a railway servant injured. There was also considerable damage to rolling stock.

3. *Rajputana-Malwa railway.*—On the 26th July 1892, a brake-van of a down goods train was derailed whilst shunting at the Bhátinda station. A railway servant was slightly injured.

4. *North Western railway.*—On the 16th August 1892, the engine of an up mail train fell into the Pulkoo Nullah between Wazirabad and Kathála, owing to the line having been breached. A fireman was drowned.

5. *Eastern Bengal state railway.*—On the 3rd September 1892, an up goods train ran over a bull at mile 17 on the Raita extension, which led to the train being derailed. The line was unfenced and the engine was not fitted with a cow-catcher. The guard and the driver were injured.

6. *Great Indian Peninsula railway.*—On the 21st September 1892, the rear brake and a third class carriage of an up mixed train were derailed while shunting at Bhusával. The guard was slightly injured.

7. *Madras railway.*—On the 8th September 1892, the engine of an extra goods train was derailed at Jalárpét, owing to the train having been turned into a dead siding. Two railway servants were injured. The pointsman, who was at fault, was prosecuted and sentenced to eighteen months' rigorous imprisonment.

ORDER.—Ordered, that the above note, with the abstract returns, be communicated for information to the Local Governments and Administrations, and to the officers noted in the margin.

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 Baluchistan.
The Director General of Railways.
The Consulting Engineers to the Government of India for Railways, Calcutta, Central Division, Lucknow and Assam.

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

Ordered further, that the note, with the abstract returns, be published in the Supplement to the *Gazette of India*.

J. S. Roberts

Under Secretary.

Documents accompanying.

Abstract returns of accidents for the nine months ending the 30th September 1892.

G. C. Press, Simla.—No. 236 P. W. D.—17-3-93.—807.

To the Secretary to the Government of Madras Public Works Department

B

No. 946 R 913 - June 1893.

PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following

Resolution by the Govt. } NE No. 172 R Stat. of P. Works
of India P. W. Dept. - }

Communicated
to the Consulting Engineer
for Railways for in-
formation.

Full R
12
6

The Consulting Engineer for P. Works

1110-29-53
1852 R 20-11-90
372 R 10-2-91
1001 R 1-5-91
122-4 R 27-5-91
1522 R 1-8-91
2308 R 15-10-91
473 R 20-2-92
2868 R 20-11-92
721 R 17-4-93

31/5
02/6/6
Est. 1/1

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.

G. L. C. P. O.,—No. 19 D. O. E.—7443—407.

B

L. 946 R 8 13-6-93.

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	44	
By accidents from other causes, including accidents from their own want of caution or misconduct	193	559	
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	

NUMBERS of PERSONS reported, during the TWELVE MONTHS ending 31st December 1992, as KILLED OR INJURED in I.O. 12 by the RAILWAY SERVA^{NTS}, and OTHER PERSONS, and classifying, as far as practicable,

ABSTRACT

Serial No.		RAILWAYS.	PASSENGERS.												FROM CAUSES OTHER THAN ACCIDENTS TO TRAINS, ETC.												FROM ACCIDENTS TO TRAINS, ETC., AS ABSTRACTED FROM 3 and 4.											
			From accidents to trains, etc., as Abstracted from 3 and 4.		FROM CAUSES OTHER THAN ACCIDENTS TO TRAINS, ETC.										From accidents to trains, etc., as Abstracted from 3 and 4.		FROM CAUSES OTHER THAN ACCIDENTS TO TRAINS, ETC.										From accidents to trains, etc., as Abstracted from 3 and 4.											
			Killed.	Injured.	1.—From falling between carriages and platforms.	2.—Falling on to the platform, balconies, etc., when getting into or out of trains.	3.—Whilst crossing the line at level crossings.	4.—By the closing of carriage doors.	5.—Falling out of carriages during the travelling of trains.	6.—Other accidents.	Total.	Total passengers.	Killed.	Injured.	1.—During shunting operations.	2.—Falling off engines, vans, waggons, etc.	3.—Coming in contact with overheads, etc., during the travelling of trains.	4.—Coming in contact, while shunting with vehicles, etc., standing in adjoining lines.	5.—Getting on or off trains, engines, etc.	6.—Whilst loading, unloading or shunting.																		
		Standard gauges.																																				
		STATE LINES WORKED BY COMPANIES.																																				
II		East Indian (a)	8	4	3	1	6	1	1	3	13	1	3	10	29	10	34	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
III		Bengal-Nagpur	3	3		1	6	1	1	1	4	2	1	4	4	4	2	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
		Indian Midland (b)				1	6	1	1		7		2	1	4	4	2	6																				
		STATE LINES WORKED BY THE STATE.																																				
IX		North Western (c)	1	2	1	1	2	3	2	2	10	27		17	32	19	34	2	4	3	6	2	11	1	1	1	1	1	1	1	1	1	1	1				
XI		Ondh and Rohilkund																																				
XII		Eastern Bengal (d)																																				
		LINES WORKED BY GUARANTEED COMPANIES.																																				
XVIII		Great Indian Peninsula (e)	1			3	2			1	9		1	10	1	10	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
XIX		Bombay, Baroda and Central India (f)																																				
XX		Madras	11			1	1			4	2	2	10	2	11	1	14	2	13	4	5	1	2															
		LINE OWNED BY NATIVE STATE AND WORKED BY COMPANY.																																				
XXVI		The Nizam's Guaranteed State (g)																																				
		Metro gauges.																																				
		STATE LINES WORKED BY COMPANIES.																																				
XXXIII		Bengal and North-Western-Tirhoot section																																				
XXXV		Company's " "																																				
XXXVI		Rajputana-Malwa (h)	3	2		1	1			1																												
XXXIX		Southern Mahratta (i)																																				
		South Indian	1	9	1					4	14		6	15	9	17	6	1	1	1	3																	
		STATE LINES WORKED BY THE STATE.																																				
XLIV		Barua																																				
		ASSISTED COMPANIES.																																				
XLVI		Donghur								1	6		1	6	1																							
XLVII		Rohilkund and Kumaon (Company's section) (j)																																				
XLIX		Dibru-Sadiya																																				
		LINES OWNED AND WORKED BY NATIVE STATES.																																				
LIII		Jodhpore-Bikaner																																				
		Jodhpore section																																				
LIV		Hickaneer																																				
		Bhavnagar-Gondal-Jundgarh-Purbandar																																				
		Special gauges.																																				
		STATE LINES WORKED BY THE STATE.																																				

(a)	includes the Telhi-Umballa-Malka and Farkhousa railways.	121	347	9	49	14	47	24	49
(b)	" the Bhopel Itarsi railway.	121	347	9	49	14	47	24	49
(c)	" the Amritsar-Patankot, Hyderabad-Cambot, Bikaner-Midlands, and Jammu and Kashmir railways.	121	347	9	49	14	47	24	49
(d)	" narrow gauge sections and the Muzrai Central railway.	121	347	9	49	14	47	24	49
(e)	" the Wardha Coal, Unhad-Masman, Bhamburda and Amroli railways.	121	347	9	49	14	47	24	49

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.

VASTS

[illegible]

(f) includes the Gaskar's Potted railway.
 (g) " the Brevada extension.
 (h) " the Gaskar's Mohana railway.
 (i) " the Mysore section and the Kolhapur railway.
 (j) " the Runkhond and Kumaon (Lachow-Bareilly 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.

	East Indian (a)				Bengal-Nagpur				North Western (c)				Gwalior and Jubbulpur			
	No.	Total all classes.	No.	Number of passengers and others.	No.	Total all classes.	No.	Number of passengers and others.	No.	Total all classes.	No.	Number of passengers and others.	No.	Total all classes.	No.	Number of passengers and others.
1. Collisions between passenger trains or parts of passenger trains	3	2	1	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	3	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4. Collisions between light engines	2	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5. Passenger trains or parts of passenger trains leaving the rails	14	14	2	2	2	2	2	2	2	2	2	2	2	2	2	2
6. Goods trains or parts of goods trains, engines, etc., leaving the rails	1	99	10	10	10	10	10	10	10	10	10	10	10	10	10	10
7. Trains or engines travelling in the wrong direction through points	22	22	2	2	2	2	2	2	2	2	2	2	2	2	2	2
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	116	116	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10. Ditto over obstructions on the line	19	19	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11. Ditto through gates at level crossings	6	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12. The bursting of boilers of engines	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13(a). The bursting of tubes, etc., of engines.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13. The failure of machinery, springs, etc., of engines	74	74	3	3	3	3	3	3	3	3	3	3	3	3	3	3
14. The failure of trees	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15. Ditto of whips	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16. Ditto of axes	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17. Ditto of brake apparatus	13	13	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18. Ditto of couplings	7	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19. Ditto of trestles, bridges, viaducts, culverts, etc.	7	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20. Broken rails	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21. The flooding of portions of permanent-way	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22. Slips in cuttings or embankments	6	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23. Fire in trains	6	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24. Fire at stations, or involving injury to bridges or viaducts	70	70	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25. Other accidents	8	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL ALL CLASSES	81	497,521	6	6	6	6	6	6	6	6	6	6	6	6	6	6

(a) Includes the Delhi-Gwalior-Kanpur and Tughlakpur railways.

(b) Includes the Bombay-Mumbai railway.

(c) Includes the Delhi-Gwalior-Kanpur and Tughlakpur 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.

	Punjab (a)				Gwalior and Jubbulpur				North Western (c)				Gwalior and Jubbulpur			
	No.	Total all classes.	No.	Number of passengers and others.	No.	Total all classes.	No.	Number of passengers and others.	No.	Total all classes.	No.	Number of passengers and others.	No.	Total all classes.	No.	Number of passengers and others.
1. Collisions between passenger trains or parts of passenger trains	1	1	1	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	4	6	10	3	3	3	3	3	3	3	3	3	3	3	3	3
3. Collisions between goods trains or parts of goods trains	1	8	9	2	2	2	2	2	2	2	2	2	2	2	2	2
4. Collisions between light engines	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5. Passenger trains or parts of passenger trains leaving the rails	2	5	7	1	1	1	1	1	1	1	1	1	1	1	1	1
6. Goods trains or parts of goods trains, engines, etc., leaving the rails	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
7. Trains or engines travelling in the wrong direction through points	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
8. Trains running into stations or sidings at too high a speed	1	133	134	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	11	11	11	11	11	11	11	11	11	11	11	11
10. Ditto over obstructions on the line	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
11. Ditto through gates at level crossings	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
12. The bursting of boilers of engines	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
13(a). The bursting of tubes, etc., of engines	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
13. The failure of machinery, springs, etc., of engines	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
14. The failure of trees	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15. Ditto of whips	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16. Ditto of axes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17. Ditto of brake apparatus	1	13	14	1	1	1	1	1	1	1	1	1	1	1	1	1
18. Ditto of couplings	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
19. Ditto of trestles, bridges, viaducts, culverts, etc.	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
20. Broken rails	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
21. The flooding of portions of permanent-way	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
22. Slips in cuttings or embankments	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
23. Fire in trains	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
24. Fire at stations, or involving injury to bridges or viaducts	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
25. Other accidents	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
TOTAL ALL CLASSES	28	277,305	3	3	3	3	3	3	3	3	3	3	3	3	3	3

(a) Includes the narrow gauge sections and the Beas Central railway.
(b) Includes the Wazirpur, Udhok-Masana, Khamgaon and Amroli railways.
(c) Not a passenger.

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 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.*

No.	Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of passengers and others.			Number of		
-----	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	----------------------------------	--	--	-----------	--	--

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 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—continued.

LXVI		LXVII		LXVIII		LXIX		LXX		LXXI		LXXII		LXXIII		LXXIV		LXXV		LXXVI		LXXVII		LXXVIII		LXXIX		LXXX		LXXXI		LXXXII		LXXXIII		LXXXIV		LXXXV		LXXXVI		LXXXVII		LXXXVIII		LXXXIX		LXXXX		LXXXXI		LXXXXII		LXXXXIII		LXXXXIV		LXXXXV		LXXXXVI		LXXXXVII		LXXXXVIII		LXXXXIX		LXXXXX		LXXXXXI		LXXXXXII		LXXXXXIII		LXXXXXIV		LXXXXXV		LXXXXXVI		LXXXXXVII		LXXXXXVIII		LXXXXXIX		LXXXXXX		LXXXXXXI		LXXXXXXII		LXXXXXXIII		LXXXXXXIV		LXXXXXXV		LXXXXXXVI		LXXXXXXVII		LXXXXXXVIII		LXXXXXXIX		LXXXXXXX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII		LXXXXXXXIX		LXXXXXXXI		LXXXXXXXII		LXXXXXXXIII		LXXXXXXXIV		LXXXXXXXV		LXXXXXXXVI		LXXXXXXXVII		LXXXXXXXVIII	
------	--	-------	--	--------	--	------	--	-----	--	------	--	-------	--	--------	--	-------	--	------	--	-------	--	--------	--	---------	--	-------	--	------	--	-------	--	--------	--	---------	--	--------	--	-------	--	--------	--	---------	--	----------	--	--------	--	-------	--	--------	--	---------	--	----------	--	---------	--	--------	--	---------	--	----------	--	-----------	--	---------	--	--------	--	---------	--	----------	--	-----------	--	----------	--	---------	--	----------	--	-----------	--	------------	--	----------	--	---------	--	----------	--	-----------	--	------------	--	-----------	--	----------	--	-----------	--	------------	--	-------------	--	-----------	--	----------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--	------------	--	-----------	--	------------	--	-------------	--	------------	--	-----------	--	------------	--	-------------	--	--------------	--

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	58,875,918	1 in 3,925,061	1 in 1,435,999
1883	2	46	65,098,953	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 2,430,447
1886	3	43	88,436,318	1 in 29,478,773	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	110,402,383	1 in 4,088,977	1 in 712,273
1890	1	24	113,828,810	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

2/31

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	...	...	3
2	Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	22	33	55	21	30	51	18	5	4	22
3	Collisions between goods trains or parts of goods trains	14	95	109	11	66	77	...	...	12	12
4	Collisions between light engines	1	20	21	4	38	42	...	...	2	2
5	Passenger trains or parts of passenger trains leaving the rails	25	72	97	30	63	93	1	2	1	3
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	1,818	1,824	(a) 1	(a) 1	8	10
10	Trains running over obstructions on the line	12	191	203	4	114	118	(a) 1	(a) 2	1	2
11	Trains running through gates at level-crossings	2	59	61	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	...	...	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	38	54	40	80	120	...	1	...	1
22	Slips in cuttings or embankments	8	74	82	11	10	21	3	2	...	3
23	Fire in trains	5	163	168	3	160	163	1	8	...	1
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	...	...	3	...
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) 85	(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-Companyganj and Thakur-Duyinzalik railways, which are now treated as steam tramways.

5-1
007/24/53

2. As compared with 1891, the number of accidents to trains, rolling-stock, permanent-way, &c., during the year 1902, shows a decrease of 12 or of 0.25 per cent., with an increase of 655.09 miles or of 3.86 per cent. in the mean 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," 1,524 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 failure of portions of permanent-way," 126 against 51; "The flooding of 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 East 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, and decreases of 38 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 8,722, 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

150,419; 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 57,109; 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 Bhavnagar-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 18 and 3 to 15 respectively.

15. Under "Slips in cuttings or embankments," there was a decrease of 55 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 559 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 122,611,315 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 15,903,861, 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 causes of suicide, &c., were 624 killed and 930 injured against 615 killed and 1,081 injured during 1891. (For details, vide abstract No. 2.)

22. In addition to the above, 77 persons were reported to have been killed 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	...	...	...	1	...	1
Oudh and Rohilkhand (state) ...	1	...	...	...	1	...	1
Eastern Bengal (state) ...	2	...	...	...	4	...	4
Great Indian Peninsula ...	3	...	1	1	4	1	5
Bombay, Baroda and Central India ...	1	...	...	...	1	...	1
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.	...	50	94	11	50	67	141

* Excludes the figures for the Cherra-Companyganj and Thabon-Duyinzak 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 Lonavla, collided with a shunting engine which was taking water from a water-crane over 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, mucedum 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 15th 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 216-17, 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 655.09 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, &c., 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 3,029,307.

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 569 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 1,081 to 930, or by 14.21 per cent.

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

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.

405.c

Dec: 16.8.93

T. A. Arthur

Under Secretary.

B.

No 1124 R of 23-8-93, Documents accompanying.

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

To The Joint Secretary to the Govt of Madras, Public Works Department, Railway Branch.

x2 1/1000 1/593

946 mR 13/11/93

* Enclosed will follow from Calcutta Dec 28.

405.c Sent by Packet Post.

B. No 1124 R of 23rd Sept 93

PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

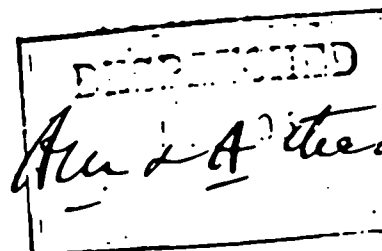
Read the following

Resoln of the Govt of India, P.W. Department No 500 R.S. of 30th Sept 1893.

Communicated to the Agents Madras & South Indian Railway.

Fru

21
A



1124 d/23 e 93

J.C. 4/8x

W
4/14