

Department of Mines, India

REPORT
OF THE
CHIEF INSPECTOR OF MINES IN INDIA

Under the Indian Mines Act (VIII of 1901)

FOR THE
YEAR ENDING 31st DECEMBER

1915

BY

G. F. ADAMS, M. Inst. C. E.
Chief Inspector of Mines in India



CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA
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STATISTICS OF MINES AND MINERALS—contd.

Table No. 1—contd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1915—contd.

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.		NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.	AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.								Grand total below and above ground.	
			Worked by mechanical power.	Not worked by mechanical power.	Number of mines inspected.	Number of inspections.		BELOW GROUND.				ABOVE GROUND.					
								Adult males.	Adult females.	Children (under 12).	Total below ground.	Adult males.	Adult females.	Children (under 12).	Total above ground.		
Bihar and Orissa .	Bokaro-Ranigarh	5	...	5	...	...	Tons. 4,333	36	43	2	81	17	12	2	31	112
		Hazaribagh {	Giridih	8	5	3	8	13	872,647	4,616	1,707	...	6,323	1,940	708	34	2,682	9,005
	Jharia		7	3	4	1	1	63,579	768	828	40	1,636	238	83	4	375	2,011
	Manbhum {		Jharia	257	153	104	174	370	9,077,221	27,840	20,821	414	49,075	17,394	8,523	1,354	27,271	76,346
		Raniganj	71	7	64	43	65	507,077	2,265	1,203	3	3,471	987	510	38	1,535	5,006
	Palamau, Daltonganj	1	1	...	...	...	85,735	283	181	83	547	234	42	32	308	855
	Sambalpur, Hingir-Rampur	1	1	...	1	2	58,825	306	125	...	431	134	29	4	217	648	
	Sonthal Parganas. {	Jainty	2	1	1	2	4	39,830	109	95	...	204	466	401	35	902	1,106
		Raniganj	2	...	2	2	2	2,059	14	9	...	23	6	2	...	8	31
		TOTAL	354	171	183	231	457	10,711,356	36,237	25,012	542	61,791	21,516	10,310	1,503	33,329	95,120
Burma	Bhamo	1	...	1	...	...	25	8	...	...	8	8	...	...	8	16
Central Provinces	Chanda, Ballarpur	3	2	1	2	3	94,880	514	33	4	551	203	72	7	282	833	
	Chhindwara, Pench Valley	8	7	1	8	19	103,152	539	250	29	818	178	90	32	300	1,118	
	Narsinghpur, Mohpani	1	1	...	...	...	55,086	534	270	...	804	363	53	...	416	1,220
	Yeotmal	1	...	1	...	...	...	5	...	...	5	8	...	...	8	13
	TOTAL	13	10	3	10	22	253,118	1,592	553	33	2,178	752	215	39	1,006	3,184	

North-West Frontier Province.	Hazara	1	...	1	...	...	60	9	...	...	9	...	...	...	...	9
Panjab	Jhelum	5	...	5	4	4	51,613	657	...	13	670	339	...	13	352	1,022
	Mianwali	1	...	1	...	...	2,029	53	...	3	56	10	1	2	13	69
	Shahpur	2	...	2	...	...	4,269	117	...	...	117	65	...	...	65	182
	TOTAL	8	...	8	4	4	57,911	827	...	16	843	414	1	15	430	1,273
	GRAND TOTAL (COAL) FOR 1915.	583	334	249	429	884	16,352,480	59,111	35,596	806	95,513	32,195	15,614	2,015	50,024	145,537
	" " OF PRECEDING YEAR.	610	326	284	423	845	15,727,631	55,302	32,292	605	88,199	31,770	15,863	1,999	49,652	137,851
	DIFFERENCE	-27	+8	-35	+6	+39	+624,849	+3,809	+3,304	+201	+7,314	+425	-69	+16	+372	+7,686
Bihar and Orissa				B.-MICA.												
							Cwts.									
	Gaya	30	...	30	7	7	4,310	480	268	71	819	135	188	144	467	1,286
	Hamaribagh	248	...	248	27	28	13,986	1,981	1,029	286	3,206	1,219	1,115	474	2,808	6,104
	Monghyr	10	...	10	...	...	593	93	38	3	134	32	27	12	71	205
	TOTAL	288	...	288	34	35	19,299	2,554	1,335	360	4,240	1,386	1,330	630	3,446	7,595
Madras	Nellore	68	13	55	...	...	3,870	1,178	821	114	2,113	276	247	275	798	2,911
	TOTAL	68	13	55	...	...	3,870	1,178	821	114	2,113	276	247	275	798	2,911

APPENDIX I—contd.

STATISTICS OF MINES AND MINERALS—contd.

Table No. 1—contd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1915—contd.

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.		NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.	AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.								Grand total below and above ground.
			Worked by mechanical power.	Not worked by mechanical power.	Number of mines inspected.	Number of inspections.		BELOW GROUND.				ABOVE GROUND.				
								Adult males.	Adult females.	Children (under 12).	Total below ground.	Adult males.	Adult females.	Children (under 12).	Total above ground.	
Rajputana	Ajmer	5	...	5	...	...	703	79	15	...	94	73	24	...	97	191
	Merwara	4	...	4	...	...	191	44	8	...	62	12	12	...	24	76
	Nasirabad	1	...	1	...	...	...	10	...	...	10	4	4	...	8	18
	TOTAL	10	...	10	...	...	894	133	23	...	156	89	40	...	129	285
	GRAND TOTAL (MICA) FOR 1915.	366	13	353	34	35	24,063	3,865	2,179	474	6,516	1,751	1,617	905	4,273	10,791
	" " OF PRECEDING YEAR.	582	15	567	93	96	38,189	6,376	3,847	693	10,916	2,405	2,312	1,352	6,069	16,985
	DIFFERENCE	-216	-2	-214	-59	-61	-14,126	-2,511	-1,668	-219	-4,398	-654	-695	-447	-1,796	-6,194
Bombay	Panch Mahals	2	2	...	...	...	26,915	490	243	77	810	123	30	7	160	970
Central Provinces	Balaghat	15	...	15	13	13	146,956	1,389	1,094	30	2,563	467	354	39	860	3,423
	Bhandara	8	...	8	5	6	68,822	391	391	16	798	310	207	56	573	1,371
	Chhindwara	2	1	1	2	2	46,941	406	431	26	363	32	16	3	101	964
	Jabalpur	1	...	1	...	...	...	5	12	...	17	2	5	2	9	26
	Nagpur	21	1	20	9	9	88,250	1,226	1,067	16	2,309	401	256	55	712	3,021
TOTAL	47	2	45	29	30	350,969	3,417	2,995	138	6,550	1,262	838	155	2,255	8,805	

Madras	Viragapatam	1	...	1	...	...	288	7	8	...	15	...	...	...	...	15
	GRAND TOTAL (MANGANESE) FOR 1915.	50	4	46	29	30	378,172	3,914	3,246	215	7,375	1,385	868	162	2,415	9,790	
	" " OF PRECEDING YEAR.	56	5	51	31	33	555,672	5,557	4,574	240	10,371	1,603	932	155	2,690	13,061	
	DIFFERENCE	-6	-1	-5	-2	-3	-177,500	-1,643	-1,328	-25	-2,996	-218	-64	+7	-275	-3,271	
							D.—LIMESTONE.										
							Tons.										
Central Provinces	Jabalpur, Katni	25	4	21	...	...	63,079	517	911	25	1,453	129	228	37	394	1,847
Panjab	Hoshiarpur	1	...	1	...	...	1,100	20	...	...	20	40	...	-	40	60
	GRAND TOTAL (LIMESTONE) FOR 1915.	26	4	22	...	...	64,179	537	911	25	1,473	169	228	37	434	1,907
	" " OF PRECEDING YEAR.	26	3	23	26	27	146,505	1,240	1,816	111	3,167	283	354	80	717	3,884	
	DIFFERENCE . . . . .	...	+1	-1	-26	-27	-82,326	-703	-905	-86	-1,694	-114	-126	-43	-283	-1,977
							E.—SALT.										
							Tons.										
Panjab	Jhelum	2	...	2	2	4	138,280	403	332	35	770	38	...	...	38	808
	Mianwali	1	...	1	1	2	1,439	60	...	17	77	...	...	...	...	77
	Shahpur	1	...	1	1	1	5,051	15	13	5	33	...	...	...	...	33
	GRAND TOTAL (SALT) FOR 1915.	4	...	4	4	7	144,770	478	345	57	880	38	...	...	38	918
	" " OF PRECEDING YEAR.	4	...	4	1	2	135,518	498	359	76	923	39	...	...	39	962
	DIFFERENCE . . . . .	...	...	...	+3	+5	+9,252	-10	-14	-19	-43	-1	...	...	-1	-44

APPENDIX I—contd.

STATISTICS OF MINES AND MINERALS—contd.

Table No. 1—contd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1915—contd.

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.		NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.	AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.								
			Worked by mechanical power.	Not worked by mechanical power.	Number of mines inspected.	Number of inspections.		BELOW GROUND.				ABOVE GROUND.				Grand total below and above ground.
								Adult males.	Adult females.	Children (under 13).	Total below ground.	Adult males.	Adult females.	Children (under 13).	Total above ground.	
Burma	Mogok	F.—GEMS. (a)—Rubies. Carats. 167,904									
	Mogok	3	3	...	...	...	(b) Sapphires. 39,718	551	...	...	551	421	...	...	421	972
	Mogok	...	...	...	...	...	(c) Spinels. 43,827									
	TOTAL	...	...	...	...	...	251,449	551	...	...	551	421	...	...	421	972
	GRAND TOTAL (Gems) FOR 1915.	3	3	...	...	...	251,449	551	...	...	551	421	...	...	421	972
	" " OF PRECEDING YEAR.	8	8	...	...	...	304,042	857	...	...	857	872	...	...	872	1,729
	DIFFERENCE	-5	-5	...	...	...	-52,593	-306	...	...	-306	-451	...	...	-451	-757
Bihar and Orissa	Monghyr	4	...	4	3	3	G.—SLATE. Tons. 2,700	113	54	54	221	61	...	...	61	282
	Gurdaspur Gurgaon Kangra	1 5 5	...	1 5 5	...	...	13 1,995 5,902	...	...	...	...	1 17 147	...	...	1 19 175	1 213 355

	TOTAL	11	...	11	...	...	7,910	278	40	56	374	165	12	18	195	569
	GRAND TOTAL (SILVER) FOR 1915.	15	...	15	3	3	10,610	391	94	110	595	226	12	18	256	851
	" " OF PRECEDING YEAR.	15	...	15	3	3	12,430	425	56	118	599	261	41	40	342	941
	DIFFERENCE . . .	...	-	...	...	...	-1,820	-34	+38	-8	-4	-35	-29	-22	-86	-90
	H.—GOLD.															
Bihar and Orissa	Singhbhum	1	-	1	...	...	Ozs. 450	78	-82	...	110	18	8	2	28	138
Madras	Anantapur	4	4	...	3	5	23,870	897	...	...	897	815	173	140	1,128	2,025
	GRAND TOTAL (GOLD) FOR 1915.	5	4	1	3	5	24,320	975	32	...	1,007	833	181	142	1,156	2,183
	" " OF PRECEDING YEAR.	3	3	...	...	...	19,873	606	...	...	606	1,013	250	169	1,432	2,038
	DIFFERENCE . . .	+2	+1	+1	+3	+5	+4,447	+369	+32	...	+401	-180	-69	-27	-276	+135
	I.—IRON.															
							Tons.									
Bihar and Orissa	Puri	1	1	...	...	...	53	...	...	...	...	44	...	26	70	70
	Singhbhum	1	1	...	...	...	123,764	434	257	37	728	94	18	1	113	841
	TOTAL	2	2	...	...	...	123,817	434	257	37	728	138	18	27	183	911
Central Provinces	Chanda	1	-	1	...	...	2,800	11	9	...	20	23	17	1	40	60
	GRAND TOTAL (IRON) FOR 1915.	3	2	1	...	...	126,617	445	266	37	748	160	35	28	223	971
	" " OF PRECEDING YEAR.	4	1	3	...	...	167,600	652	346	58	1,056	97	25	10	132	1,188
	DIFFERENCE . . .	-1	+1	-2	...	...	-40,983	-207	-80	-21	-308	+63	+10	+18	+91	-217

APPENDIX I—contd.

STATISTICS OF MINES AND MINERALS—contd.

Table No. 1—contd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1915—contd.

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.		NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.	AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.									
			Worked by mechanical power.	Not worked by mechanical power.	Number of mines inspected.	Number of inspections.		BELOW GROUND.				ABOVE GROUND.				Grand total below and above ground.	
								Adult males.	Adult females.	Children (under 13).	Total below ground.	Adult males.	Adult females.	Children (under 13).	Total above ground.		
Burma	Tavoy	38	1	37	...	...	39,432	1,740	1	...	1,741	1,336	110	...	1,446	3,187
	J.—WOLFRAM.																
							Cwts.										
		GRAND TOTAL (WOLFRAM) FOR 1915.	38	1	37	39,432	1,740	1	...	1,741	1,336	110	...	1,446	3,187
	" " OF PRECEDING YEAR.	43	1	42	18	22	31,526	1,825	32	...	1,857	1,069	90	16	1,175	3,032	
	DIFFERENCE	-5	...	-5	-18	-22	+7,906	-85	-31	...	-116	+267	+20	-16	+271	+155	
Madras	K.—MAGNESITE.																
							Tons.										
	Salem	2	...	2	...	...	7,450	198	169	133	500	74	...	28	102	602
	TOTAL OF PRECEDING YEAR .	2	...	2	...	...	399	12	...	21	33	37	...	10	47	80
	DIFFERENCE . . . .	...	...	...	...	...	+7,051	+186	+169	+112	+467	+37	...	+18	+55	+522

		L.—CHROMITE.														
								Cwts.								
Baluchistan	Quetta-Pishin	1	1	...	...	...	980	4	...	...	4	4	...	...	4	8
	Zhob	5	...	5	...	...	28,320	50	...	...	50	27	...	...	27	77
GRAND TOTAL (CHROMITE) FOR 1915.		6	1	5	...	...	29,300	54	...	...	54	31	...	...	31	85
TOTAL OF PRECEDING YEAR		10	1	9	...	...	60,120	39	...	...	39	31	...	...	31	70
DIFFERENCE		-4	...	-4	...	...	-30,820	+15	...	...	+15	...	...	...	...	+15
		M.—COPPER ORE.														
								Tons:								
Bihar and Orissa	Singhbhum	1	1	...	1	5	8,010	445	...	...	445	843	136	...	979	1,424
	Kathe	1	...	1	...	...	...	18	...	...	18	7	...	...	7	25
Burma	Kyaukse	1	...	1	...	...	...	43	...	...	43	38	...	...	38	81
	Lower Chindwin	2	...	2	...	...	...	208	...	...	208	87	21	...	108	316
	TOTAL	4	...	4	...	...	...	269	...	...	269	132	21	...	153	422
GRAND TOTAL (COPPER) FOR 1915.		5	1	4	1	5	8,010	714	...	...	714	975	157	...	1,132	1,646
TOTAL OF PRECEDING YEAR		1	1	...	1	5	4,400	402	...	...	402	841	564	60	1,465	1,867
DIFFERENCE		+4	...	+4	...	...	+3,610	+312	...	...	+312	+134	-407	-60	-333	-21
		N.—BAUXITE.														
								Cwts.								
Central Provinces	Jabalpur	1	...	1	...	...	17,520	20	18	...	38	3	...	...	3	41
	TOTAL OF PRECEDING YEAR	1	...	1	...	...	9,280	16	13	...	28	5	...	...	5	33
DIFFERENCE . . . . .		...	...	...	...	...	+8,240	+4	+6	...	+10	-2	...	...	-2	+8

APPENDIX I—contd.

STATISTICS OF MINES AND MINERALS—concl'd.

Table No. 1—concl'd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1915—concl'd.

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.		NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.	AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.								
			Worked by mechanical power.	Not worked by mechanical power.	Number of mines inspected.	Number of inspections.		BELOW GROUND.				ABOVE GROUND.				Grand total below and above ground.
								Adult males.	Adult females.	Children (under 15).	Total below ground.	Adult males.	Adult females.	Children (under 15).	Total above ground.	
Madras	Nellore	...	...	...	...	...	T.—SAMARSKITE. lbs. 2	...	...	...	...	...	...	...	...	...
	TOTAL OF PRECEDING YEAR	...	...	...	...	...	Cwts. lbs. 43 0	...	...	...	...	...	...	...	...	...
	DIFFERENCE	...	...	...	...	...	Cwts. lbs. —42 110	...	...	...	...	...	...	...	...	...
Central Provinces	Jabalpur	1	...	1	...	...	Tons. 139	...	...	...	...	...	...	...	...	...
	TOTAL OF PRECEDING YEAR	1	...	1	1	1	109	...	...	...	...	...	...	...	...	...
	DIFFERENCE	...	...	...	—1	—1	+30	...	...	...	...	...	...	...	...	...

GRAND TOTAL (ALL MINERALS) 1915.	1,121	368	753	503	969	Tons. 17,124,855 Cwts. 110,784 lbs. 84 Carats. 251,449 Troy ounces. 24,832	73,119	43,033	1,865	118,017	39,668	19,063	3,340	62,071	180,088
GRAND TOTAL OF PRECEDING YEAR.	1,387	369	1,018	603	1,040	Tons. 16,903,215 Cwts. 151,897 lbs. 16 Carats. 304,042 Troy ounces. 19,873	74,500	43,638	1,933	120,071	40,674	20,541	3,925	65,140	185,211
DIFFERENCE	-266	-1	-265	-100	-71	Tons. +221,640 Cwts. -41,163 lbs. +68 Carats. -62,593 Troy ounces. +4,959	-1,381	-605	-63	-2,054	-1,006	-1,478	-585	-3,069	-5,123

* Won from Sankara mica mine in Madras.
 † Labour figures included with those for Jaisalmer Khamtone.

APPENDIX I—contd.

Table No. 2.
Number of mines opened and closed during the year ending 31st
December 1915.

Province.	District.	Number of mines opened.	Number of mines closed.	
A.—COAL.				
BALUCHISTAN	Quetta-Fishin	2	1	
	Sibi-Khost	2	1	
TOTAL		4	2	
BENGAL	Bankura . . . . .	...	1
	Burdwan-Raniganj	12	17	
TOTAL		12	18	
BIHAR AND ORISSA	Hazaribagh {	Bokaro-Ramgarh	5	2
		Giridih	1
	Manbhum {	Jharis	1	2
		Raniganj	11	22
	Sonthal Parganas, Raniganj	1	10	
TOTAL		18	38	
BURMA	Bhamo	1	1	
CENTRAL PROVINCES	Chanda	1	...	
	Chhindwara	1	1	
	Yeotmal	1	...	
TOTAL		3	1	
PANJAB	Mianwali	1	1	
TOTAL (COAL)		39	61	
B.—MICA.				
BIHAR AND ORISSA	Gaya	6	7	
	Hazaribagh	88	49	
	Monghyr	1	2	
TOTAL		95	58	
MADRAS	Nellore	19	13	

APPENDIX I—*contd.*Table No. 2—*concl'd.*

Number of mines opened and closed during the year ending 31st
December 1915—*concl'd.*

Province.	District.	Number of mines opened.	Number of mines closed.
RAJPUTANA	Ajmer . . . . .	...	2
	Nasirabad	1	...
	TOTAL	1	2
TOTAL (MICA)		115	78
CENTRAL PROVINCES	C.—MANGANESE.		
	Balaghat	2	...
	Bhandara	1	...
	Nagpur	10	...
TOTAL (MANGANESE)		13	...
CENTRAL PROVINCES	D.—LIMESTONE.		
	Jabalpur	3	5
PANJAB	E.—SLATE.		
	Gurgaon	1	1
MADRAS	F.—GOLD.		
	Anantapur . . . . .	...	1
CENTRAL PROVINCES	G.—IRON.		
	Chanda . . . . .	...	1
BURMA	H.—WOLFRAM.		
	Tavoy	11	1
BURMA	I.—COPPER.		
	Kathe	1	...
	Kyaukse	1	...
	Lower Chindwin	1	..
TOTAL (COPPER)		3	...
CENTRAL PROVINCES	J.—BAUXITE.		
	Jabalpur . . . . .	...	1
BIHAR AND ORISSA	K.—CLAY.		
	Manbhurn	2	...
CENTRAL PROVINCES	L.—GALENA.		
	Drug	1	1
BIHAR AND ORISSA	M.—TIN.		
	Hazaribagh . . . . .	...	1
GRAND TOTAL (ALL MINES)		188	146

APPENDIX I—*concl'd.*

Table No. 3.

The following table shows the fluctuations in the output of the principal minerals raised from mines classed under the Indian Mines Act, 1901. The other minerals raised are gems, slate, iron ore, magnesite, chromite, tin, steatite, clay, galena, samarskite, bauxite, fuller's earth and silver.

YEAR.	Coal.	Manganese.	Mica.	Limestone.	Salt.	Wolfram.	Gold.	Copper.
	Tons.	Tons.	Cwts.	Tons.	Tons.	Cwts.	Troy ozs.	Tons.
1906 . . .	9,112,663	436,442	50,438	48,836	118,023	...	...	...
1907 . . .	10,526,468	642,082	44,919	73,222	101,708	...	4,017	...
1908 . . .	12,149,020	494,942	46,208	101,569	93,779	...	7,242	10
1909 . . .	11,294,227	357,205	32,011	56,502	126,987	144	5,615	7
1910 . . .	11,387,716	468,669	21,375	81,258	119,867	18	3,269	864
1911 . . .	12,048,726	441,426	31,686	92,692	124,603	8,394	8,277	2,079
1912 . . .	14,044,368	423,464	41,660	91,784	131,233	25,401	7,269	8,984
1913 . . .	15,486,318	637,391	43,650	71,259	133,540	27,520	11,019	3,639
1914 . . .	15,727,631	555,672	38,189	146,505	135,518	31,526	19,873	4,400
1915 . . .	16,352,480	373,172	24,063	64,179	144,770	39,432	24,320	3,010

Table No. 4.

The following table shows the amount of coal raised, the average number of persons working daily and the death-rates during the years 1906 to 1915 in respect of coal mines under the Indian Mines Act, 1901 :—

YEAR.	Amount of coal raised.	Average number of persons working daily below and above ground.	Number of deaths below and above ground.	DEATH-RATES.	
				Per 1,000,000 tons raised.	Per 1,000 persons working daily below and above ground.
1906 . . .	9,112,663	90,159	80	8.78	.89
1907 . . .	10,526,468	102,689	89	8.45	.86
1908 . . .	12,149,020	120,107	164	13.49	1.36
1909 . . .	11,294,227	109,291	119	10.53	1.08
1910 . . .	11,387,716	105,285	160	14.05	1.52
1911 . . .	12,048,726	106,598	148	12.28	1.38
1912 . . .	14,044,368	131,392	157	11.17	1.29
1913 . . .	15,486,318	133,042	185	11.95	1.39
1914 . . .	15,727,631	137,851	145	9.22	1.05
1915 . . .	16,352,480	145,537	166	10.15	1.14

APPENDIX II.
ACCIDENTS IN MINES.

Table No. 1.

List of Fatal Accidents in mines regulated by the Indian Mines Act, 1901, during the year 1915.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
EXPLOSIONS OF FIRE DAMP—(1 death).						
1	8th November, 7-15 A.M.	Sodepur Mine, Sitarampur P. O., Bengal.	Bengal Coal Co., Ltd.	Roghu Manjhi, (m.), 24, <i>Miner.</i>	Coal	Deceased entered a gallery in the early morning with a naked light and ignited an accumulation of gas. An explosion followed and he was burned so severely that he died ten hours later. The night sirdar had failed to detect the gas and it is surmised that he did not inspect the gallery. The night sirdar and two other men were prosecuted for a breach of special rules. Inspection and inquiry made. <i>See Report, page 6.</i>
FALLS OF ROOF AND SIDES—(93 deaths).						
(a) Falls of roof—(51 deaths).						
2	11th January, 9 P.M.	Mohpani Mine, Mohpani P. O., Central Provinces.	Great Indian Peninsula Railway.	Harku Katia, (f.), 35, <i>Coal carrier.</i>	Coal	A fall of roof stone occurred in the working place where deceased was carrying coal. She sustained an injury to her thigh and died nine days afterwards.
3	13th January, 10 A.M.	West Ledo Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Pancham Chamar, (m.), 28, <i>Rail mistri.</i>	Coal	Whilst a coal cutter was cutting roof coal to make height on a pony haulage road, a mass of about 2 tons of coal fell from concealed 'slips.' Deceased and another man were passing at the time. The former was killed and the latter sustained a fracture of the thigh. Inquiry made.
4	18th January, 3 P.M.	No. 4 Khoet Mine, Khoet P. O., Baluchistan.	North-Western Railway	Ali Mahomed, (m.), 25, <i>Carpenter.</i>	Coal	Deceased was fixing a setting near the face of a gallery when a piece of shale, measuring 30' x 8' x 11' thick, fell upon his back from the seam overhead, a height of 7' 6". He received injuries to his spine, from the effects of which he died nearly three months later. Inspection and inquiry made.
5	20th January, 1 A.M.	West Ledo Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Dimbeswar Kalita, (m.), 26, <i>Coal shoveller.</i>	Coal	Whilst shovelling coal in a 'chamber,' measuring 18' x 27' x 12' high, deceased was killed by the fall of about 3 tons of coal from the roof. Inquiry made.
6	29th January, 11-30 P.M.	Sanctoria Mine, Disbargarh P. O., Bengal.	Bengal Coal Co., Ltd.	Sriminato Bauri, (m.), 38, <i>Miner.</i>	Coal	Deceased, during the legitimate absence of the sirdar, commenced to rob the top of a main road pillar. Whilst so engaged a mass of roof stone, measuring 8' x 3' x 2' 3", fell upon him and caused injuries from which he died within half an hour. Inquiry made.
7	30th January, 3 P.M.	Sinidih Mine, Katraagarh P. O., Bihar and Orissa.	New Simdih Coal Co., Ltd.	Noyan Bauri, (m.), 40, <i>Coal cutter.</i>	Coal	Whilst cutting stone from the floor on a main haulage road deceased was killed by a fall of roof stone, measuring 27' x 18' x 3' to 10' thick. Inspection and inquiry made.

APPENDIX II—*contd.*

Fatal Accidents, 1915—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—<i>contd.</i>						
(a) Falls of roof—<i>contd.</i>						
8	5th February, 4 A.M.	Sijua Mine, Sijua P. O., Bihar and Orissa.	Sijua Coal Co., Ltd.	Behari Mahato, (m.), 24, <i>Miner.</i>	Coal	Deceased passed through a fence in a pillar cutting district and whilst cutting coal from an abandoned 'stook' was killed by the fall of roof stone 6" thick and 30' x 25' in area. Inspection and inquiry made.
9	5th February, 8-30 A.M.	Nuni Mine, Asansol P. O., Bengal.	Baraboni Coal Concern, Ltd.	Singrai Manjhi, (m.), 22, <i>Miner.</i>	Coal	Deceased was working in a gallery of a pillar cutting district. Whilst so engaged, a mass of stone fell from the roof in front of him owing to a prop having been accidentally knocked out by falling coal. A corner of the stone fell upon him and injured him so severely that he died shortly afterwards. Inspection and inquiry made.
10	9th February, 7 P.M.	Dhobidih Mine, Giridih P. O., Bihar and Orissa.	Bengal Giridih Coal Co., Ltd.	Rupu Meah, (m.), 14, <i>Miner.</i>	Coal	Deceased and a companion were sitting in their working gallery sharpening their tools preparatory to commencing work, when a mass of roof stone, measuring 5' 6" x 3' 6" x 1' 3", tapering to feather edges, fell from a height of 3' 3" upon them. Deceased was killed instantly and his companion was slightly injured. Inspection and inquiry made.
11	20th February, 3-45 A.M.	Akhalpur Mine, Nandi P. O., Bengal.	Hariladih Coal Co., Ltd.	Chaltar Manjhi, (m.), 30, <i>Miner.</i>	Coal	Deceased was sleeping at the point of junction of four galleries when a mass of stone and coal, measuring 29' x 20' x 4' 6", fell upon him from a height of 10 feet. He was killed outright. Inspection and inquiry made. <i>See Report, page 8.</i>
12	26th February, 12-30 P.M.	Kustore Mine, Kustore P. O., Bihar and Orissa.	Raniganj Coal Association, Ltd.	Sedhu Manjhi, (m.), 36, <i>Miner.</i>	Coal	Deceased, in the legitimate absence of the sirdar, left his working place to cut coal in an adjacent gallery. Whilst so engaged, a mass of roof coal, measuring 25' x 8' x 1' 4", fell upon him from a height of 9' 6". He was killed outright. Inspection and inquiry made.
13	27th February, 7-30 P.M.	Kessabganj Mine, Kalipahari P. O., Bengal.	Gunpat Ram Marwari	Chandmani Manjhian, (f.), 18, Mani Manjhian, (f.), 14, <i>Kamins.</i>	Coal	The two deceased were loading coal in a gallery. Whilst so engaged, a mass of roof coal and shale, measuring 12' x 9' x 6", fell upon them. They were killed outright. The roof at this place had been cut improperly and without orders by the miners by whom these women were employed, and who absconded after the accident. Inspection and inquiry made.
14	28th February, 9 P.M.	Tirap Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Wang Kwa Fo, (m.), 25, <i>Coal filler.</i>	Coal	Whilst deceased was loading coal into a basket in a 'chamber' measuring 10' x 10' x 8' high, about half a ton of coal fell from the roof upon him. He sustained a fracture of the thigh and died from internal bleeding in hospital a few hours later. Inquiry made.
15	6th March, Midnight.	Baraboni Mine, Asansol P. O., Bengal.	Baraboni Coal Concern, Ltd.	Dhasu Roy, (m.), 30, <i>Miner.</i>	Coal	Deceased went behind a fence into an unused gallery to rob a pillar. Whilst so engaged, a mass of roof and side coal, about 15 tons in weight, fell upon him. He died two hours later from injuries received. Inspection and inquiry made.

16	19th March, 11 A.M.	Tikak Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Mongru Oraon, (m.), 22, <i>Coal cutter</i> ; Somaru Gore, (m.), 40, <i>'Opening' man.</i>	Coal	Whilst a gang of coal cutters were at work in a new 'opening', measuring 20' x 12' x 3' 6" high, a mass of coal fell from concealed 'slips' in the roof. Mongru was killed on the spot and Somaru succumbed to his injuries twelve days later. Inquiry made.
17	22nd March, 9 A.M.	Barkui Mine, Pench P. O., Central Provinces.	Pench Valley Coal Co., Ltd.	Prayag Lodh, (m.), 28, <i>Miner.</i>	Coal	Deceased entered a fenced place near the goaf edge and commenced to extract coal from a thin seam lying above the working seam. A fall of stone occurred striking him on the head and killing him. Another workman, who was with him, was prosecuted under special rule 6 and fined Rs. 20 or two weeks' imprisonment.
18	24th March, 8 A.M.	North Kustore Mine, Kustore P. O., Bihar and Orissa.	Raniganj Coal Association, Ltd.	Santi Korin, (f.), 18, <i>Coal carrier.</i>	Coal	Whilst five coal cutters were extracting a pillar of coal in a pillar cutting district, a mass of roof coal, weighing about 35 tons and measuring 28' x 14' x 1' 8" to 4' 0" thick, fell from the roof swaying out seven props beneath it. Deceased was killed on the spot and a sirdar was severely injured by the falling coal. Inspection and inquiry made. <i>See Report, page 8.</i>
19	29th March, 9 A.M.	Basundni Mine, Jawaja P. O., Rajputana.	Rajputana Mica and Minerals Co., Ltd.	Natha, (m.), 29, <i>Miner.</i>	Mica	Deceased was working against orders in an abandoned working extracting mica from a supporting pillar, when about 2 tons of roof stone fell upon him causing instant death.
20	5th April, 2-30 P.M.	Bhowra Mine, Jamadoba P. O., Bihar and Orissa.	Eastern Coal Co., Ltd.	Dukhu Rajwar, (m.), 40, <i>Coal cutter.</i>	Coal	Whilst deceased was standing on a barrel and cutting down roof coal he was struck by a mass of coal, weighing about 25 cwts., which fell unexpectedly from between two smooth 'joints'. He succumbed two days later presumably from internal injuries. Inspection and inquiry made.
21	12th April, 2 P.M.	Mucheridih Mine, Mohoda P. O., Bihar and Orissa.	Mucheridih Coal Co., Ltd.	Robi Mahato, (m.), 14, <i>Dust loading coolie.</i>	Coal	Deceased passed through a fence and whilst loading dust coal lying on the floor in old workings he was struck down by a fall of roof stone, 1' 3" thick, over an area 6' x 10'. He was killed on the spot. Inspection and inquiry made.
22	18th April, 9 A.M.	Nodiha Mine, Dishargarh P. O., Bengal.	Nodiha Coal Co., Ltd.	Somi Manjhian, (f.), 17, <i>Coal carrier.</i>	Coal	A piece of roof stone, measuring 5' 8" x 3' x 5½" maximum thickness, fell from a height of 7 feet in a working gallery and killed deceased outright as she was walking beneath it. The gallery had been examined two hours before by a sirdar who had declared it safe. Inspection and inquiry made.
23	18th April, 11 A.M.	Dandot Mine, Dandot P. O., Panjab.	Thakur Dass Ramji Dass	Akbar, (m.), 16, <i>Stone coolie.</i>	Coal	Whilst employed with two other miners in stowing away rubbish in a gallery, a piece of shale, measuring 3' x 2' x 1' 6", fell from between two 'chocks' burying deceased and killing him.
24	19th April, Noon.	Rakha Hills Mine, Rakha Mines P. O., Bihar and Orissa.	Cape Copper Co., Ltd.	Basa, (m.), 28, <i>Coolie.</i>	Copper	Deceased was found immediately beneath the junction of the vertical portion of a shaft with the inclined portion. An irregularly shaped piece of rock, measuring about 2' 6" x 2' x 4" thick, had fallen on him from a height of 15 feet, from the angle between two portions of the shaft, fracturing his skull and killing him.
25	28th May, 4 A.M.	Kendwadih Mine, Jamadoba P. O., Bihar and Orissa.	Hariladh Coal Co. Ltd.	Jhunu Bilaspuri, (m.), 42, <i>Coal cutter.</i>	Coal	Whilst the sirdar and some stone cutters were preparing deceased's working place in a pillar cutting district, he and his two wives went through a fence into an unused gallery. They were lying asleep when a stone, about 1' 3" square and 3" thick, fell from the roof 7 feet above. Deceased sustained a rupture of the liver and died within an hour. Inspection and inquiry made.

APPENDIX II—contd.

Fatal Accidents, 1915—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—(contd.)						
(a) Falls of roof—contd.						
26	12th June, 9 A.M.	Kurkend Mine, Kurkend P. O., Bihar and Orissa.	Sudamdih Coal Co., Ltd.	Pitam Singh, (m.), 37, Coal cutter.	Coal	Deceased was at work cutting floor coal on an upper bench 9 feet high in a pillaring area in a seam 20 feet thick. The roof was carried on props set on the floor coal. Another miner was cutting coal on a lower bench close by, and this man undermined a prop which fell out, causing a fall of roof coal and stone 2' 3" thick over an area 12' x 5' 6". Deceased received injuries to which he succumbed an hour and a half later. Inspection and inquiry made.
27	7th July, 4-30 A.M.	Tikak Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Kubir Mogor, (m.), 28, Coal loader.	Coal	Whilst a gang of eight men, in charge of a sirdar, were at work in a 'chamber', measuring 60' x 30' x 30' high, the roof began to 'weight'. Whilst the men were running out a mass of 30 tons of coal fell from the roof. Deceased was struck down and killed on the spot. His body was recovered about an hour later. Inquiry made.
28	23rd July, 4 A.M.	Sijua Mine, Sijua P. O., Bihar and Orissa.	Sijua Coal Co., Ltd.	Maiku Manjhan, (f.), 30, Coal carrier.	Coal	Deceased worked as a coal carrier for her husband, who was employed in cutting roof coal, three feet thick, in a gallery seven feet high. While she was filling a basket a mass of coal fell prematurely from the roof at a point where her husband had first been cutting. She was knocked down and sustained injuries to which she succumbed shortly afterwards. The fallen coal weighed about two tons and the cavity from which it fell measured 5' x 3' 6" x 3'. Inspection and inquiry made.
29	23rd July, Midnight.	Charanpur Mine, Charanpur P. O., Bengal.	Reliance Coal Co., Ltd.	Ratni Passi, (m.), 38, Miner.	Coal	Deceased and another miner, in collusion with the day and night sirdar of the district, entered a fenced area, drilled, charged and blasted two shots in a pillar when some roof coal fell from a height of nine feet and killed deceased outright. The other miner was prosecuted for a breach of special rules but absconded. Inspection and inquiry made.
30	7th August, 3-30 A.M.	Lutchipur Mine, Sitaranpur P. O., Bengal.	Damuda Coal Co., Ltd.	Suku Manjhi, (m.), 28; Ramji Manjhi, (m.), 60, Miners.	Coal	The two deceased deliberately entered a fenced goaf to get some fallen coal when about five tons of roof fell upon them from a height of 10 feet and killed them outright. Inspection and inquiry made.
31	9th August, 10-30 A.M.	Nardang Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Ram Gholam Ahir, (m.), 32, Coal shoveller.	Coal	Deceased was loading coal on a road where a new 'chamber' was being commenced, when about a ton of coal fell from a 'slip' in the roof about 5 feet above. Four props had been set under the 'slip', but the coal fell between two of the props. Whilst rescue operations were in progress a further fall of coal took place. When extricated deceased was found to be dead. Inquiry made.

32	31st August, 10 A.M.	New East Ledo Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Paltu, (m.), 36, <i>Coal shoveller.</i>	Coal	Deceased was shovelling coal at a point where two cross roads 6' wide × 5' high joined and where a new 'chamber' was being commenced. Whilst so employed a slab of coal, weighing about 12 cwts., fell from the roof without warning and rolled upon him. He sustained injuries to which he succumbed whilst being carried from the mine. Inquiry made.
33	31st August, Midnight.	Tirap Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Pin-Tin-Yan, (m.), 30, <i>Coal filler.</i>	Coal	Whilst deceased and four other Chinese coolies were at work in a 'chamber', 50' × 30' × 15' high, a lump of coal, weighing about 80 lbs., fell from the roof. Deceased's skull was fractured and death was instantaneous. Inquiry made.
34	5th September, 5 A.M.	Tikak Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Tikalal Nepali, (m.), 21, <i>Tyammer</i> ; Kabutri Ghatwal, (f.), 23, <i>Incline attendant.</i>	Coal	A party of six persons had completed their shift and had started to walk out of the mine. Whilst they were passing the bottom of a self-acting incline, which carries the coal down on to a haulage road, a mass of coal, weighing about 40 tons, fell from the roof. The two deceased were killed and two others injured. The road was 8 feet wide and 3 feet 6 inches high, and the cavity from which the coal fell was 16' × 8' × 2' 6". Inquiry made.
35	10th September, 9 P.M.	Tikak Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Ananda Gore, (m.), 36, <i>'Opening' man.</i>	Coal	Whilst deceased was breaking a lump of coal at the lower end of a 'chamber', 30 feet square and 19 feet high, about 4 tons of clay fell from the roof near the top of the 'chamber' and rolling down the steep slope of the seam, fell upon and buried him. He sustained injuries to which he succumbed the same day. Inquiry made.
36	17th September, 7-16 A.M.	Borra Mine, Sitaranpur P. O., Bengal.	New Beerbhun Coal Co., Ltd.	Kangal Kora, (m.), 40, <i>Miner.</i>	Coal	Deceased, together with another miner and two women broke down a fence and entered a goaf, from which timber had been drawn the evening before, to gather some loose coal. They had loaded two baskets when roof coal fell over an area of 750 square feet from a height of 8' 6". The roof coal was 5 feet thick. Deceased was killed outright. The other miner was prosecuted for a breach of special rules but absconded. Inspection and inquiry made.
37	20th September, 1 P.M.	Radhaballabpur Mine, Sandih P. O., Bengal.	J. Boisogomoff & Co.	Chand Behari Bauri, (m.), 30, <i>Miner.</i>	Coal	Deceased entered a fenced gallery without authority and commenced to cut coal when roof coal, measuring 32' × 10' × 3' 8" thick, fell from a height of 5' 6" and killed him outright. Inspection and inquiry made.
38	2nd October, 9-15 A.M.	Viceroy Mine, Charanpur P. O., Bengal.	Minto Coal Co., Ltd.	Gonesh Manjhi, (m.), 25, <i>Miner</i> ; Kuchari Manjhan, (f.), 25, <i>Miner's kamin.</i>	Coal	The two deceased, in the illegal absence of the sirdar, began to cut coal from a pillar under extraction. Whilst so doing, a piece of roof stone, measuring 19' × 2' 9" × 1' 8" thick, fell from a height of 4 feet upon them and killed them instantly. Inspection and inquiry made.
39	7th October, 10 A.M.	Budrachak Mine, Sijua P. O., Bihar and Orissa.	Budrachak Coal Mining Co., Ltd.	Sankumari Bilaspuri, (f.), 20, <i>Coal carrier.</i>	Coal	Deceased is said to have gone through a fence into an unused gallery for a necessary purpose. While she was there a wedge-shaped mass of stone, measuring 19' long × 3' 6" wide and 2' to 0" thick, fell from between pronounced 'joints' in the roof knocking out three props. She was struck by the falling stone and succumbed to her injuries within a few hours. Inspection and inquiry made.
40	1st November, 11-15 A.M.	West Ledo Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Gopal, (m.), 30, <i>Coal loader.</i>	Coal	Whilst some coolies were at work in a 'chamber,' measuring 30' × 24' × 14' high, a mass of coal, weighing about 10 tons, fell from the roof without warning. Deceased was killed and three other persons were injured. Inquiry made.
41	23rd November, 5-30 P.M.	Khost Mine, Khost P. O., Baluchistan.	North-Western Railway	Khan Daman, (m.), 25, <i>Carpenter's coolie.</i>	Coal	Deceased was assisting to set a prop between two broken ones when the roof broke off below the line of props and fell upon him. He was taken out with difficulty and was believed to have escaped serious injury. He died suddenly and unexpectedly four days later.

APPENDIX II—*contd.*

Fatal Accidents, 1915—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—(contd.)						
(a) Falls of roof—<i>concl'd.</i>						
42	30th November, 11 P.M.	Sanctoria Mine, Dishargarh P. O., Bengal.	Bengal Coal Co., Ld.	Kisto Bouri, (m.), 50, <i>Sirdar.</i>	Coal	Deceased, who was the sirdar of the district, entered an old fenced goaf which was 'weighting' when a piece of roof coal and stone, measuring 16' x 10' x 1' 6" thick, fell from a height of 16 feet upon him and killed him outright. Inspection and inquiry made.
43	4th December, 9-30 A.M.	Bhuggutdih Mine, Jharia P. O., Bihar and Orissa.	Bengal Nagpur Coal Co., Ld.	Ganga Ghatwal, (m.), 35, Jilal Ghatwal, (m.), 38, Babu Morral, (m.), 30, <i>Coal cutters.</i>	Coal	The deceased left their working place and passing through a fence, entered a goaf and began to pick up fallen coal. They were killed on the spot by a fall of roof coal, 3 feet in thickness, from a height of 12 feet, over an area measuring 30' x 20'. Inspection and inquiry made.
44	14th December, 11 A.M.	Baraboni Mine, Asansol P. O., Bengal.	Baraboni Coal Concern, Ld.	Ranjit Manjhi, (m.), 35, <i>Miner.</i>	Coal	Whilst deceased was cutting roof coal in a gallery, 30 feet wide, a piece of coal, measuring 7' x 4' x 2' 6" thick, fell from a height of 8 feet and killed him outright. The roof was much affected by 'slips.' Inspection and inquiry made.
45	18th December, 10-30 A.M.	Banatakola Mine, Jharia P. O., Bihar and Orissa.	New Beerbhun Coal Co., Ld.	Sumai Manjhi, (m.), 35, <i>Coal cutter.</i>	Coal	Deceased, whilst working in a gallery, 7' 6" in height, was killed by a mass of coal, measuring 7' x 5' x 1' 6" to 0" thick, which fell from 'slips' in the roof. Inspection and inquiry made.
(b) Falls of side—(42 deaths).						
46	16th January, 2 A.M.	Kurkend Mine, Kurkend P. O., Bihar and Orissa.	Marine Coal Co., Ld.	Telu Meah, (m.), 45, <i>Coal cutter.</i>	Coal	Under the personal direction of an overman and a sirdar a mass of overhanging coal was dislodged from the side of a pillar in a pillar cutting district by two coal cutters, using a crowbar. The rest of the coal cutters and carriers had been previously sent out to a safe distance, about 50 feet away. A mass of about 5 cwts. of coal was brought down which in falling struck and knocked out a prop, 16 feet long, which in its turn struck and knocked out another prop, 18 feet long. The second prop struck deceased on the head and inflicted injuries, to which he succumbed three days later. The fact that deceased had approached was unknown to the officials present. Inspection and inquiry made.
47	2nd February, Noon.	Jamadoba Mine, Jamadoba P. O., Bihar and Orissa.	Indian Collieries Syndicate, Ld.	Sanku Manjhi, (m.), 35, <i>Coal cutter.</i>	Coal	Deceased worked in a pillar cutting area and was killed on the spot by a fall from the coal face of about 5 cwts. of coal. Inspection and inquiry made.
48	17th February, 4 P.M.	Abrakhi Mine, Rejanli P. O., Bihar and Orissa.	Raja J. P. N. Singh	Tilak Singh Ghatwar, (m.), 35, <i>Miner.</i>	Mica	Whilst deceased was digging in the corner of an open excavation some earth fell on his back. He died a few hours afterwards from the injuries received.

49	14th March, 4 A.M.	Bhowra Mine, Jamadoba P. O., Bihar and Orissa.	Eastern Coal Co., Ltd.	Mukteswar Mahato, (<i>m.</i>), 23, <i>Coal cutter.</i>	Coal	Deceased broke down a fence and entered old workings. Whilst he was illegally cutting coal from the corner of a pillar, he was killed on the spot by the fall of a mass of coal, measuring 5' x 3' x 1' 9" and weighing about a ton. Inspection and inquiry made.
50	22nd March, 11 A.M.	Tikak Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Lalmoni Alik, (<i>m.</i>), 25, <i>Earth cutter.</i>	Coal	Some coolies in charge of a colliery sirdar were engaged in levelling a site for a coolie barrack on the side of a hill. Without orders they undercut to a depth of 1' 6", a face, 14 feet high, composed of soil and boulders. Whilst deceased was using a pick in the undercut, a fall of soil and boulders took place and he was struck by a boulder and killed. Rescue operations were in progress when a further fall of about 4 tons of soil and boulders took place and caused serious injuries to two other persons. Inquiry made.
51	28th March, 5-40 A.M.	Tikak Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Amdu alias Tagnig Bhutia, (<i>m.</i>), 27, Tamba Bhutia, (<i>m.</i>), 35, <i>'Opening' men.</i>	Coal	Whilst some miners were at work in a 'chamber,' 80' x 30' x 12' high, the roof began to 'weight.' The sirdar in charge ordered all persons to leave the 'opening,' all obeyed him except the two deceased. They refused to come out and said that the place was safe. Shortly after a mass of about 4 tons of coal fell from the side. Amdu was killed on the spot and Tamba received injuries to which he succumbed the same day. Inquiry made.
52	22nd April, 10 P.M.	Khas Jharis Mine, Jharis P. O., Bihar and Orissa.	Khas Jharis Colliery Co., Ltd.	Bansi Bhuita, (<i>m.</i>), 28, Bhagiu Turi, (<i>m.</i>), 40, <i>Coal cutters.</i>	Coal	The two deceased worked in a pillar cutting district. During the absence of the sirdar they left their working place, broke down a fence and began to cut coal from the corner of a pillar, 14 feet high. They were killed on the spot by the fall of a mass of coal, measuring 9' x 8' x 3' 6", from a height of 5 feet. The fallen coal weighed about 5 tons. Inspection and inquiry made.
53	28th April, 1 P.M.	Kendwadib Mine, Kusunda P. O., Bihar and Orissa.	East Indian Coal Co., Ltd.	Balkishan Dosadh, (<i>m.</i>), 35, <i>Coal cutter.</i>	Coal	Whilst work was going on in a pillar cutting district in a coal seam, 18 feet in thickness, the goaf began to 'weight.' In accordance with the manager's standing orders, the sirdar stopped the work and ordered all persons to go out to the loading station whilst he remained near the goaf, to watch developments. Deceased and another coal cutter were employed in splitting a pillar at a distance of about 100 feet from the edge of the goaf. Thinking themselves in a place of safety they did not obey the sirdar's orders at once but sat down to smoke near their working place. A slab of coal, measuring 3' x 2' x 2', fell from the side of the pillar from a height of 7 feet and killed deceased on the spot. Inspection and inquiry made.
54	19th May, 2 A.M.	Haripur Mine, Chora P. O., Bengal.	Bholanath Chatterji	Kalip Bauri, (<i>m.</i>), 32, <i>Miner.</i>	Coal	Deceased, in the absence of and against the orders of the sirdar, went behind a fence to rob a pillar. Whilst so engaged about a ton of side coal fell upon him and inflicted injuries from which he died six hours later. Inspection and inquiry made.
55	26th May, 6 A.M.	Bansdeopur Mine, Kusunda P. O., Bihar and Orissa.	Bansdeopur Coal Co.	Dhuluwa Chamar, (<i>m.</i>), 14, <i>Coal carrier.</i>	Coal	Whilst the extraction of a pillar of coal, 16 feet high, was going on, a mass of coal, weighing about 2 cwts., fell from the face at a height of 7 feet. Deceased was struck on the head and killed on the spot. Another man sustained a fracture of the leg. Inspection and inquiry made.
56	31st May, 12-30 P.M.	Hermyingyi Mine, Tavoy P. O., Burma.	Hermyingyi Mining Co., Ltd.	Maung Oh, (<i>m.</i>), 42, <i>Miner.</i>	Wolfram	Whilst engaged in opening up the mouth of an old tunnel, a fall of about 8 tons of soft earth and large stones took place from a height of 15 feet above where deceased was working, striking him and breaking his neck. The slope of the ground was about 80° with the horizontal, there was no higher ground above. He had been warned to put in timber which at the time of accident was lying ready jointed to be erected. The weather was dry at the time but had rained during the night. Three other men were working at the same time. An official of the Company had visited and warned the men three days previously.

APPENDIX II—*contd.*

Fatal Accidents, 1915—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—(contd.)						
<i>(b) Falls of side—contd.</i>						
57	31st May, 3 P.M.	Aldih Mine, Sitarampur P. O., Bengal.	Aldih Coal Co., Ld.	Dharam Manjhi, (m.), 23, <i>Miner.</i>	Coal	Deceased went behind a fence to rob a pillar. Whilst so engaged, a mass of coal, weighing about a ton, fell upon his head and killed him instantly. Inspection and inquiry made.
58	5th June, 3-30 P.M.	Chinchuria Mine, Asansol P. O., Bengal.	New Beerbhun Coal Co., Ld.	Moti Kamar, (m.), 25, <i>Miner.</i>	Coal	Deceased, in the absence of the sirdar, began to cut the side of a pillar. He had been previously warned not to do so. Whilst so engaged, a mass of coal of about 2 tons in weight, fell from a 'slip' upon him. He was killed outright. Inspection and inquiry made. <i>See Report, page 8.</i>
59	11th June, 10-45 A.M.	West Ledo Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ld.	Dudhi Gurung Nepali, (m.), 32, <i>Contractor sirdar.</i>	Coal	Whilst a gang of Nepalese in charge of a Bengali sirdar was at work in a 'chamber,' the roof gave signs of 'weighting.' The Bengali sirdar in charge gave orders for every one to leave the 'chamber.' This order was obeyed by all except deceased who was a Nepalese contracting sirdar, who declared that nothing was wrong and that he understood the work thoroughly. About five minutes later half a ton of coal fell from the side and struck him. He sustained a severe fracture of the leg and died in hospital the same day. Inquiry made.
60	11th June, Between 3 & 4 P.M.	Karharia Mine, Jhnmri-Tilaya P. O., Bihar and Orissa.	Johur Mull and Sundar Mull.	Bishun Teli, (m.), 35, <i>Labourer.</i>	Mica	While deceased was sitting at the mouth of an old gallery a portion of the side of the gallery fell upon him injuring his spinal cord. He died seven weeks later.
61	23rd June, 10 A.M.	Namdang Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ld.	Gono Lodh, (m.), 35, <i>Coal loader.</i>	Coal	Deceased was one of a gang of timber men and coolies who were engaged in repairing a level road. Whilst he was loading fallen coal into a basket a fall of side took place, knocking out three timber settings. He was completely buried in small coal and died from suffocation. The body was recovered about an hour later. Inquiry made.
62	8th July, 6-30 A.M.	Dishargarh Mine, Dishargarh P. O., Bengal.	Equitable Coal Co., Ld.	Nanku Passi, (m.), 35, <i>Miner.</i>	Coal	Deceased deliberately broke down a fence, entered a place where overhanging side coal had been declared unsafe and commenced to cut coal. The overhanging coal, measuring 6' 6" x 4' 6" x 2' 3" thick, fell from a smooth roof parting and a 'joint' from a height of 10 feet and crushed deceased so severely that he died five hours later. The sirdar had left the place only a few minutes before. Inspection and inquiry made.
63	12th July, 11 A.M.	Rampur Mine, Jharsaguda P. O., Bihar and Orissa.	Hingir-Rampur Coal Co., Ld.	Panika, (m.), 34, <i>Coal cutter.</i>	Coal	While deceased was standing by the side of a shot firer who was tamping a shot hole they heard a noise near a pillar further down in the direction of the dip. The shot firer ran up and deceased ran down the gallery when a block of coal, measuring 8' x 5' x 3', fell from a 'cleat' and crushed deceased. The portion that came away had been undercut for 2 feet and was supported by three sprags.

64	27th July, 2 P.M.	Kanbank Mine, Tavoy P. O., Burma.	Radcliffe and Co., Ld.	Hu Kit, (m.), 24, Kum Hung, (m.), 22, Coolies.	Wolfram	The two deceased were killed by a fall of earth in an open cutting which was being sluiced by monitors.
65	31st July, 4 A.M.	Kurkend Mine, Kurkend P. O., Bihar and Orissa.	Marine Coal Co., Ld.	Kasim Ali Meah, (m.), 35, Coal cutter.	Coal	Whilst coal cutters were engaged in extracting a pillar of coal in a pillar cutting district, a mass of coal, measuring 12' x 5' x 2' 3" thick and weighing about 5 tons, fell suddenly from a smooth 'joint.' Deceased was killed on the spot and another was injured. Inspection and inquiry made.
66	31st July, 2 P.M.	Kanbank Mine, Tavoy P. O., Burma.	Radcliffe and Co., Ld.	Chong Hee, (m.), 20, Coolie.	Wolfram	A fall of earth occurred. Deceased, who ran back into the danger zone for his coat, was caught by the fall and killed. The other coolies got clear.
67	8th August, 4-30 P.M.	Sendra Mine, Bansjora P. O., Bihar and Orissa.	Sendra Coal Co., Ld.	Bhukan Turi, (m.), 36, Coal cutter.	Coal	Deceased went through a fence and whilst cutting coal illegally from the side of a pillar, was killed on the spot by the fall of a mass of about 15 tons of coal from the side. Inspection and inquiry made.
68	13th August, 5 P.M.	North Kustore Mine, Kustore P. O., Bihar and Orissa.	Raniganj Coal Association, Ld.	Muktakeshi Ghatwarin, (f.), 42, Coal carrier.	Coal	Whilst a miner was cutting at a bench of floor coal 6 ft. high in a gallery originally 8 ft. high he brought down from the side, at a height of 5 ft., a wedge-shaped mass of coal and stone, measuring 4' x 2' x 1' 6". Deceased, who was loading coal into a basket, was struck and received injuries from which she died eight hours later. Inspection and inquiry made.
69	31st August, 3-30 P.M.	Kurkend Mine, Kurkend P. O., Bihar and Orissa.	Sudamdih Coal Co., Ld.	Sanjaria Passi, (f.), 30, Coal carrier.	Coal	Whilst a coal cutter was dressing down overhanging coal from the side of a pillar, 17 ft. high, a mass of coal, measuring 4' x 3' 6" x 3' 6" and weighing about 3 tons, fell without warning from the side, at a height of about 3 ft. Deceased, who was standing about 15 ft. distant, was knocked down and killed instantly. Two props were also knocked out. Inspection and inquiry made.
70	28th August, 1 P.M.	Sowardih Mine, Bhujudih P. O., Bihar and Orissa.	Sowardih Coal Co.	Lurgu Chamar, (m.), 40, Coal cutter Sovia Chamarin, (f.), 26, Coal carrier.	Coal	The two deceased went through a fence which fences a pathway leading through a quarry to underground workings where they were regularly employed. Whilst they were illegally cutting coal from the face of the quarry and loading it into baskets, they were caught by a fall of a mass of stone, measuring 20' x 4' x 3' thick, which they had undermined. Sovia was killed on the spot and Lurgu died the same day as the result of his injuries. Inspection and inquiry made.
71	7th September, 2-3 A.M.	Tirap Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ld.	Chin Yan Chan, (m.), 30, Coal filler.	Coal	Whilst deceased was at work in a small 'chamber,' about 8 feet high, a lump of clay, weighing about 60 lbs., rolled down a steep slope on to him from an abandoned 'chamber' above. He sustained injuries to which he succumbed twenty minutes later. Inquiry made.
72	9th September, 10 P.M.	Kurkend Mine, Kusunda P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	Udua Turi, (m.), 20, Coal carrier.	Coal	Deceased was employed in carrying coal for a miner, who was cutting floor coal in a gallery 10 feet high, driven through a pillar in a pillar cutting area. During the temporary absence of the sirdar he took the miner's pick and began to cut coal from the side. About a ton of coal fell on him from the side at a height of 4 feet. His chest and ribs were crushed and he died about half an hour later. Inspection and inquiry made.
73	10th September, 9 A.M.	Jamadoba Mine, Jamadoba P. O., Bihar and Orissa.	Indian Collieries Syndicate, Ld.	Jahu Mahato, (f.), 18, Coal carrier.	Coal	Deceased, whilst carrying coal in a pillar cutting district, was struck by a mass of about 10 cwt. of coal, which fell from the corner of a pillar, 10 feet high. She sustained injuries to which she succumbed a few hours later. Inspection and inquiry made.

APPENDIX II—contd.

Fatal Accidents, 1915—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—conold.						
(b) Falls of Side—conold.						
74	4th October, 5-30 A.M.	Kankani Mine, Bansjora P. O., Bihar and Orissa.	Eastern Coal Co., Ltd.	Mohan Bhuia, (m.), 25, <i>Coal cutter.</i>	Coal	Whilst deceased was robbing coal from the side of a pillar, in a gallery, 22 feet wide and 11 feet high, he was killed on the spot by a fall of a mass of coal, weighing about 30 cwts. The sirdar was prosecuted for a breach of special rules and fined Rs. 5. Inspection and inquiry made.
75	14th October, Midnight.	Sijua Mine, Sijua P. O., Bihar and Orissa.	Sijua Coal Co., Ltd.	Bhudhain Bhuiani, (f.), 18, <i>Carrier.</i>	Coal	Deceased was lying asleep in a gallery when a piece of coal, measuring 5' 6" × 4' × 1' 8", tapering to feather edges, fell from the side upon her. She was killed instantly. Inspection and inquiry made.
76	30th October, 8-30 A.M.	Bhulanbarari Mine, Jamadoba P. O., Bihar and Orissa.	Bhulanbarari Coal Co., Ltd.	Ram Singar Singh, (m.), 35, <i>Munshi.</i>	Coal	Deceased was killed on the spot by a fall of about 10 cwts. of coal from the corner of a pillar of coal. Inspection and inquiry made.
77	1st November, 2 A.M.	South Baraboni Mine, Charanpur P. O., Bengal.	South Baraboni Coal Co.	Bhikar Manjhi, (m.), 55, <i>Miner.</i>	Coal	Deceased entered some old fenced workings without authority and commenced to cut coal from a pillar. He was injured by a fall of overhanging coal and died about an hour later. Inspection and inquiry made.
78	5th November, 6-30 P.M.	Titilmuri Mine, Sijua P. O., Bihar and Orissa.	Titilmuri Collieries, Ltd.	Jugal Bauri, (m.), 32, <i>Coal cutter.</i>	Coal	Deceased and four other miners were employed in cutting floor coal in a level gallery, 21 feet in height. Whilst he was robbing coal from the corner of a pillar, a wedge-shaped mass of coal, measuring 3' × 9' × 14' and weighing about 5 tons, fell from the corner from a height of 7 feet. He was killed on the spot. Inspection and inquiry made.
79	8th November, 10 A.M.	Barari Mine, Jamadoba P. O., Bihar and Orissa.	East Indian Coal Co., Ltd.	Beni Kahar, (m.), 30, <i>Surface trolley man.</i>	Coal	Deceased and three other trolley men, all of whom worked on the surface, removed the fencing from the entrance to an incline, entered the mine and breaking down a fence underground entered an unused gallery 20 feet high and 12 feet wide, where they began to rob coal from the side. Whilst so engaged a mass of about 2 tons of coal fell from the side at a height of 10 feet. Deceased sustained injuries to which he succumbed the following day. The other men absconded shortly after the accident. Inspection and inquiry made.
80	10th November, 12-30 P.M.	Bansjora Mine, Bansjora P. O., Bihar and Orissa.	Bansjora Coal Co., Ltd.	Dassu Turi, (m.), 20, <i>Coal cutter.</i>	Coal	Deceased and another coal cutter were commencing the driving of a split gallery, 11 feet wide and 7 feet high, through a pillar, 31 feet square and 17 feet in height, when a wedge-shaped mass of coal, 8' wide × 5' 0" thick × 10' 0" high, fell from the side of the pillar over the roof of the split gallery. Deceased was killed on the spot. Inspection and inquiry made.

81	12th November, 11 A.M.	Namdang Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Pancham Passi, (m.), 28, <i>Coal shoveller.</i>	Coal	Whilst some coolies were loading coal in a 'chamber', measuring 60' x 36' x 16' high, a mass of coal, about 300 lbs. in weight, fell from the side, at a height of 8 feet. Deceased was killed on the spot and another man sustained severe injuries which disabled him for six weeks. Inquiry made.
82	17th December, 0-30 A.M.	Khoist Mine, Khoist P. O., Baluchistan.	North-Western Railway	Mahomed Sharif, (m.), 30, <i>Mine carpenter.</i>	Coal	Whilst deceased was making a foot-hole for a new prop to be put alongside a broken one, in the line of coal face timbering, part of the seam came away from a hidden 'back' and fell upon him and killed him. The coal seam at this place was abnormally thick owing to a local doubling of the lower coal.
83	31st December, 10 A.M.	Aldih Mine, Sitarampur P. O., Bengal.	Aldih Coal Co., Ltd.	Dhuli Manjhian, (f.), 28, <i>Dust woman.</i>	Coal	Deceased was loading dust, whilst pillar robbing was in progress in a fenced gallery, when a slab of side coal, measuring 2' x 2' x 9' high, fell upon her and killed her outright. Inspection and inquiry made.

IN SHAFTS.

Whilst ascending or descending by machinery—(3 deaths).						
84	19th May, 8 P.M.	Benashir Mine, Jharia P. O., Bihar and Orissa.	Standard Coal Co., Ltd.	Pokla Bilaspuri, (m.), 42, <i>Coal cutter.</i>	Coal	Whilst five persons were ascending in a cage from the bottom of a shaft, 243 feet deep, an empty tub fell from the descending cage and struck the ascending cage. Deceased was killed, one other person was severely injured and three other persons were thrown out, falling a distance of about 10 feet. The frame and roof of the cage were badly damaged and the roofing at the shaft bottom was demolished. The bankman, who, against standing orders, placed the empty tub in the cage and neglected to place the top bar in position, absconded immediately after the accident. He had held the post for two years. The cage was not fitted with safety gates or chains. Inspection and inquiry made.
85	4th August, 9-15 A.M.	Saltore Mine, Dishargarh P. O., Bengal.	Saltore Coal Co., Ltd.	Sukhi Manjhian, (f.), 18, <i>Miner's kamin.</i>	Coal	Deceased, whilst being raised to the surface, attempted to step out of the cage on to a shaft bottom in mistake for the surface flat sheets. She fell to the bottom of the shaft, a depth of 97 feet, and was killed instantly. The cage was not fitted with safety gates or chains. Inspection and inquiry made.
86	4th September, 3 P.M.	Ramagiri Mine, Morrison P. O., Madras.	Anantapur Gold Fields, Ltd.	Kaja Meah, (m.), 24, <i>Pump driver.</i>	Gold	Whilst deceased was riding in a bucket the crosshead, working on rope guides, stuck 20 feet above the bucket and then fell. He fell to the bottom of the shaft having probably jumped off as the crosshead was too high to strike him. Riding in buckets is not allowed.
Falling into the shaft from the surface—(3 deaths).						
87	15th March, 3 P.M.	East Kurkend Mine, Kirkend P. O., Bihar and Orissa.	Marine Coal Co., Ltd.	Dogor Khan, (m.), 24, <i>Labourer.</i>	Coal	Deceased was one of a gang of men employed in erecting a steel head-gear. Whilst engaged in covering the top of the shaft with beams, he overbalanced and fell to the bottom of the shaft, 250 feet below. He was killed on the spot. Inspection and inquiry made.
88	5th May, 10 P.M.	Panchgatchia Mine, Sitarampur P. O., Bengal.	Lutchipur Coal Co., Ltd.	Gopi Meah, (m.), 45, <i>Bankman.</i>	Coal	Deceased failed to notice that the automatic gate, protecting one side of the shaft, had not fallen into position after the cage had left the surface. He pushed a tub, presumably in a moment of carelessness, into the unprotected shaft and, in so doing, was carried down with it. He was killed instantly. Inspection and inquiry made.

APPENDIX II—contd.

Fatal Accidents, 1915—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
IN SHAFTS—contd.						
Falling into the shaft from the surface—concl'd.						
89	18th June, 4 A.M.	East Kurkend Mine, Kurkend P. O., Bihar and Orissa.	Marine Coal Co., Ltd.	Etwari Chamar, (m.), 40, <i>Trolleyman.</i>	Coal	Deceased and another man walked through the cage at the surface pushing out a loaded tub in front of them. As they emerged at the opposite side the cage went up about 7 feet. Deceased lost his balance and fell backwards to the bottom of the shaft, 175 feet below. It is probable that the steam valve of the winding engine was not completely closed and that as soon as the tub left the cage, the decrease in the weight on the rope was sufficient to permit the steam to move the engine and raise the cage. Inspection and inquiry made.
Falling from part of the way down—(3 deaths).						
90	3rd February, 10-15 A.M.	Angarpatra Mine, Katrasgarh P. O., Bihar and Orissa.	Union Coal Co., Ltd.	Manthu Meah, (m.), 35, <i>Contractor.</i>	Coal	Whilst placing in position a plank between the cage and a temporary inset in a shaft, deceased overbalanced and fell to the bottom of the shaft, 40 feet below. He was killed on the spot. Inspection and inquiry made.
91	6th July, 9-30 P.M.	Sudamdih Mine, Bhujudih P. O., Bihar and Orissa.	Empire Coal Co., Ltd.	Jugal Bauri, (m.), 22, <i>Pump minder.</i>	Coal	Deceased was employed in attendance on a pump, resting on girders, at an inset, 90 feet above the bottom of a sinking shaft, 275 feet deep. By some means unknown he slipped from the pump platform and fell to the bottom of the shaft. He was killed on the spot. Inspection and inquiry made.
92	3rd October, 9-30 P.M.	Jibutil Mine, Morrison P. O., Madras.	Jibutil (Anantapur) Gold Mines, Ltd.	Kollapurigadu, (m.), 25, <i>Stuff coolie.</i>	Gold	Deceased was climbing up a shaft by the ladder way and apparently climbed through the timbers, dividing the skip way from the ladder way, in order to place a bundle of cloth in a recess to the west of the shaft, a few feet from the surface. In doing this he fell to the bottom of the shaft, a depth of a thousand feet, where his body was found.
Things falling from the surface—(1 death).						
93	23rd January, 1 P.M.	Lutchipur Mine, Sitarampur P. O., Bengal.	Damduda Coal Co., Ltd.	Bhusan Bauri, (m.), 26, <i>Onsetter.</i>	Coal	Deceased, an onsetter, had loaded a cage with a full tub and was tying a tub tally to it. Whilst so engaged, a piece of coal fell from the surface, a distance of 376 feet, on to the top of his head. He received injuries from which he died fifteen hours later without recovering consciousness. Inspection and inquiry made. <i>See Report, page 9.</i>

Things falling from part of the way down—(4 deaths).

94	3rd February, Noon.	West Gopalichak Mine, Kurkend P. O., Bihar and Orissa.	Gopalichak Coal Co., Ltd.	Ram Manjhi, (m.), 30, <i>Sinker.</i>	Coal	Whilst at work in the bottom of a sinking shaft, 320 feet deep, deceased was struck on the head by something falling from above and he fell into water. The body was recovered half an hour later. The wound on the head was sufficient to cause death. Inspection and inquiry made.	
95	1st October, 5-30 P.M.	Sudamdih Mine, Bhujudih P. O., Bihar and Orissa.	Empire Coal Co., Ltd.	Ghulam Mahomed, (m.), 32, <i>Fitter's labourer.</i>	Coal	A duplex pump was suspended in a sinking shaft, at a depth of 240 feet, and it became necessary to raise it to about 4 feet from out of accumulated water. The level of the water was being maintained by a pulsometer pump, suspended at the same point. As the clearance between the pump was small, the deceased and three other men stood on the pump to fend it off from the pulsometer pump and from the walls of the shaft. As the pump was being raised deceased was struck on the head by some unknown object falling from above and he fell into the water. His body was recovered two days later. Inspection and inquiry made.	
96	14th November, 3-30 P.M.	Bullari Mine, Kutore P. O., Bihar and Orissa.	East Indian Coal Co., Ltd.	Lab Singh, (m.), 35, <i>Fitter's labourer.</i>	Coal	A pump and a range of wrought steel pipes, 6" in diameter and 600' in length, with screwed joints, were suspended in a shaft. The pump and pipes were being lowered, when the pump fouled a buntion, with the result that one of the pipes immediately above the pump buckled and had to be taken out. Whilst the pipe was being replaced, the suspended range of pipes parted in the middle at a joint and a length of 300 feet of the pipes fell to the bottom of the shaft, 40 feet below. Of the seven persons engaged in fitting the new pipe, one was killed and two were injured. Inspection and inquiry made. <i>See Report, page 9.</i>	
97	31st December, 4-30 P.M.	Dishargarh Mine, Dishargarh P. O., Bengal.	Equitable Coal Co., Ltd.	Boal Bauri, (m.), 30, <i>Onsetter.</i>	Coal	A piece of wood, measuring 8" x 4½" x 4½", fell from behind a receiving skid at the top of a shaft, 437 feet deep, and struck deceased on the head, killing him outright. Inspection and inquiry made.	
Miscellaneous—(3 deaths).							
98	16th February, 4 A.M.	Lakorka Mine, Katrasgarh P. O., Bihar and Orissa.	Lakorka Coal Co., Ltd.	Bhim Singh, (m.), 25, <i>Pump khalasi.</i>	Coal	Deceased was found lying dead in a tub at the bottom of a shaft, 180 ft. in depth. There was no evidence to show how he met his death. Inspection and inquiry made.	
99	9th November, 11-30 A.M.	Loyabad Mine, Bansjora P. O., Bihar and Orissa.	Barakar Coal Co., Ltd.	Mata Phal Ahir, (m.), 23, <i>Line mistri.</i>	Coal	Deceased attempted to bring up a rail, 9' 6" long, in a cage at a winding shaft, by holding it vertically at one end of the cage. When the cage reached the surface, the end of the rail struck the beam to which the keps were attached. The rail slid along the floor of the cage and deceased was forced out of the cage and killed by falling to the bottom of the shaft, 286 feet below. Inspection and inquiry made.	
100	3rd December, 9 A.M.	Madhubpur Mine, Raniganj P. O., Bengal.	Imperial Coal Co., Ltd.	Borada Baurin, (f.), 36, <i>Slack carrier.</i>	Coal	Deceased and another woman attempted, without permission, to push a tub of slack through a cage which had not settled on the keps. They followed the tub on to the cage and their additional weight was sufficient to turn the engine round and to cause the cage to descend. One woman jumped back to bank and the other, in attempting to do so, was caught between the top of the cage and the bank and crushed so severely that she died shortly afterwards. The shaft was not used for raising coal. Inspection and inquiry made.	

APPENDIX II—contd.

Fatal Accidents, 1915—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
EXPLOSIVES—(7 deaths).						
101	27th January, 3 P.M.	South Jibutil Mine, Morriston P. O., Madras.	Jibutil Gold Mines, Ld.	Moideen Cutti, (m.), 22, Hand jumper coolie.	Gold	Deceased was drilling in a socket of an old shot hole when an explosion of dynamite occurred. He died of the wounds received, on the following day. In all probability he removed a plug which is placed in an old socket hole to avoid this class of accident. Other coolies admitted they were warned not to go there. Inquiry held.
102	15th February, 2-30 P.M.	Katras Mine, Katrasgarh P. O., Bihar and Orissa.	Nowagarh Coal Co., Ld.	Mohabir Singh, (m.), 28, Bhatu Gope, (m.), 40, Stone cutters.	Coal	The two deceased were working in a sinking shaft in which some shots had previously been fired. Whilst so engaged, an unexploded charge went off and killed Mohabir outright. Bhatu died on the following day consequent upon injuries he had received. Inspection and inquiry made.
103	28th March, 6-15 A.M.	Ramagiri Mine, Morriston P. O., Madras.	North Anantapur Gold Mines, Ld.	Syed Ali Cutti, (m.), 24, Blaster.	Gold	Deceased, after lighting some fuses in the bottom of a well, 30 ft. deep, was being hoisted to the surface in a bucket. He had with him a jumper drill which caught in a collar. While he was liberating the bucket the charges commenced to explode and this caused him to fall to the bottom and he was killed by the explosion of the remaining charges.
104	6th July, 11 P.M.	Sibpur Mine, Charanpur P. O., Bengal.	Minto Coal Co., Ld.	Maharaj Din Passi, (m.), 30, Miner.	Coal	Deceased entered a fenced gallery, drilled a hole and fired a shot. His body was found beneath a piece of coal, measuring 4' x 2' x 1/6", which had fallen from a 'slip' from a height of 12' 9". He either had gone to see the effect of the shot before the place had settled or he was dressing some side coal. The sirdar was in the mine and heard the shot. Inspection and inquiry made.
105	15th July, 12-10 P.M.	Sabetaung Mine, Sabetaung P. O., Burma.	Jamal Bros. & Co., Ld.	Maung Cho Myain, (m.), 19, Coolie.	Copper	As deceased was lying in his hut he was struck by a piece of stone which was hurled from a shot hole 800 ft. away and entered through the roof of the hut. He died from shock.
106	27th November, 4 P.M.	K. 32 Mine, Kodarma P. O., Bihar and Orissa.	Hoare, Miller & Co.	Bhatua Turi, (m.), 12, Coolie.	Mica	Deceased and a companion were dressing the entrance of an inclined shaft with a hammer and chisel, when an explosion occurred. The chisel appears to have come in contact with an unexploded cartridge of dynamite, the result of a misfire some years before. He died five hours later from shock. Inspection and inquiry made.
IRRUPTIONS OF WATER OR FALLING INTO WATER—(3 deaths).						
107	26th July, 8 A.M.	Lutchipur Mine, Sitarampur P. O., Bengal.	Damuda Coal Co., Ld.	Kesori Gowala, (m.), 30, Chandu Bauri, (m.), 32, Pumpmen.	Coal	The two deceased, while attending to a pump at the bottom of a shaft, 155 feet deep, were overcome by black damp and fell into water, 4' 9" deep, and were drowned. Inspection and inquiry made.

108	19th September, 9 A.M.	Kutehidhana Mine, Ramakona P. O., Central Provinces.	Indian Manganese Co.	Maltu, (f.), 14, Coolie.	Manganese	Deceased went to bathe in a flooded portion of an open working and, stepping out of her depth, was drowned before aid could be rendered. Since the accident this place has been more securely fenced.
HAULAGE—(17 deaths).						
109	16th January, 1-15 P.M.	Sitalpur Mine, Dishargarh P. O., Bengal.	Bengal Coal Co., Ltd.	Domor Gope, (m.), 40, Miner.	Coal	Deceased and another person were riding on a set of fifteen empty tubs, against orders. The set descended a road dipping 1 in 5½ and was derailed at some "points." The leading three tubs were overturned with the result that deceased was killed outright. Inspection and inquiry made.
110	31st January, 1 A.M.	Lutchipur Mine, Sitarampur P. O., Bengal.	Damuda Coal Co., Ltd.	Ramnath Singh, (m.), 29, Sirdar.	Coal	Deceased was a sirdar, employed in the night shift of a pillaring district. Presumably feeling tired, he laid down on a couple of sleepers between the rails of a tramping level. Whilst in this position, he was run into by a loaded tub and received an injury to the spine. He died forty-six hours later in consequence. Inspection and inquiry made.
111	18th February, 10-30 A.M.	Namdang Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Rajuba Bhumij, (m.), 24, Incline attendant.	Coal	Whilst deceased was re-railing an empty tub on a haulage incline, the pin of the D link fell out and the loaded tub ran wild down the incline. He was struck by the tub and received injuries from which he died an hour later. Inspection and inquiry made.
112	27th March, 7 A.M.	Sudamdih Mine, Bhujudih P. O., Bihar and Orissa.	Empire Coal Co., Ltd.	Sarada Baurin, (f.), 32, Coal carrier.	Coal	Owing to the fracture of a coupling chain on a haulage slope, two loaded tubs ran wild on a grade of 1 in 13. Deceased, who was stacking coal on a level gallery, was struck by coal thrown from the tubs when they overturned. She was killed on the spot. Inspection and inquiry made.
113	15th April, 7 A.M.	Sodepur Mine, Sitarampur P. O., Bengal.	Bengal Coal Co., Ltd.	Mangal Manjhi, (m.), 16, Miner.	Coal	Deceased was making an attempt to take an empty tub down a recognised haulage road, dipping 1 in 5, when it overpowered him. He was knocked down and killed outright. Inspection and inquiry made.
114	20th June, 4 P.M.	Kuldiha Mine, Giridih P. O., Bihar and Orissa.	Bengal Coal Co., Ltd.	Anadi Chamar, (m.), 40, Pump khalasi.	Coal	Some empty tubs were being propelled along a haulage level. Owing to the grade the progress of the tub along the level, near the brow, could only be effected by drawing back repeatedly the tub attached to the rope, the full length of its coupling chain, and then returning it with a bump against the leading tub. One of these bumps caused a coupling hook to be detached and five tubs broke and ran wild. They became derailed at the bottom of a jig knocking out three props, behind which deceased and two others were taking refuge. The props struck all three persons and inflicted serious injuries. Deceased died five hours later. Inspection and inquiry made.
116	16th July, 4-30 P.M.	Dandot Mine, Dandot P. O., Panjab.	Thakur Dass Ramji Dass	Kirpa Ram, (m.), 52, Chowkidar.	Coal	Deceased, while crossing the tub line, against orders, was knocked down by a set of six loaded tubs and killed instantly.
116	24th July, 10 A.M.	Dumarkunda Mine, Barakar P. O., Bihar and Orissa.	Bengal Coal Co., Ltd.	Kokar Bauri, (m.), 17, Miner.	Coal	A tub of earth was being unloaded in a haulage road, when the coupling attaching it to the set became unhooked. The tub ran to a junction where it became derailed and struck deceased, killing him instantly. It was surmised that the tub broke away while overturning it, to facilitate unloading. Inspection and inquiry made.
117	6th August, 11-30 P.M.	Banakuri Mine, Toposi P. O., Bengal.	Banakuri Coal Co., Ltd.	Dhangji Manjhan, (f.), 36, Kasira.	Coal	Deceased was crushed between a coal pillar and a tub, which had run away in a haulage road, owing to a coupling having been detached. Inspection and inquiry made.

APPENDIX II—contd.

Fatal Accidents, 1915—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
HAULAGE—concl'd.						
118	10th September, 1-30 P.M.	Mohpani Mine, Mohpani P. O., Central Provinces.	Great Indian Peninsula Railway Co.	Manghia Gaudni, (f.), 16, Coal carrier.	Coal	The fourth tub of a set of ten tubs of earth became derailed, a coupling chain became detached and three tubs ran wild and ran over deceased who was 42 feet away. The man in charge should have seen that all persons were safe before signalling for the set to come down.
119	14th September, 9 A.M.	West Ledo Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Gunri, (f.), 22, Labourer.	Coal	Deceased was one of a gang of four women and one man, in charge of an experienced man, who were employed in cleaning the water channel on a haulage road. A train of loaded tubs passed them and deceased appears to have lost her head and to have jumped in front of the train. She was killed on the spot. The road was wide at the place of accident and there were convenient refuge holes close at hand. Inquiry made.
120	1st October, 5-30 P.M.	Dishargarh Mine, Dishargarh P. O., Bengal.	Equitable Coal Co., Ltd.	Bushi Baurin, (f.), 13, Dust kamn. Sasi Baurin, (f.), 10, Not employed.	Coal	A set of nine loaded tubs was being drawn out of a level when, owing to the draw-bar of the third tub breaking, the last six tubs ran wild. The two deceased, who were following the set, were crushed against a pillar by two of the tubs and received injuries from which they died. Inspection and inquiry made.
121	26th October, 8-30 P.M.	Dishargarh Mine, Dishargarh P. O., Bengal.	Equitable Coal Co., Ltd.	Jhari Meah, (m.), 50, Door minder.	Coal	Deceased, who was in charge of a ventilation door in a main haulage road, was knocked down by a set of empty tubs. He died of shock three and a half hours later. Inspection and inquiry made.
122	6th November, 8 A.M.	Dishargarh Mine, Dishargarh P. O., Bengal.	Equitable Coal Co., Ltd.	Beju Bouri, (m.), 32, Tram rider.	Coal	A set of seven loaded tubs was being raised in an incline, when the two leading tubs became derailed. Deceased was riding on the first tub and in jumping off he slipped and fell between the derailed tubs. He died of his injuries sixteen days later. Inspection and inquiry made. See Report, page 10.
123	1st December, 9-30 A.M.	Jharia Khas Mine, Jharia P. O., Bihar and Orissa.	Standard Coal Co., Ltd.	Jhogru Koiri, (m.), 28, Labourer.	Coal	Whilst deceased was working with a carpenter on a haulage slope, four tubs became uncoupled and broke away from a set of seven empty tubs which was being lowered down the slope. Deceased was struck by the tubs and died two days later without recovering consciousness. Inspection and inquiry made.
124	12th December, 5 P.M.	Banderchus Mine, Domchanch P. O., Bihar and Orissa.	F. F. Chrestien and Co., Ltd.	Sukra Musohar, (m.), 12, Tool carrier.	Mica	Deceased was crushed between a moving tub and the side wall of a haulage adit and was killed outright. Inspection and inquiry made.
SUNDRIES UNDERGROUND—(13 deaths).						
125	6th January, 3-30 P.M.	Namdang Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Kanai Napat, (m.), 28, Coal shoveller.	Coal	Whilst deceased was shovelling coal from a heap of loose coal in a 'chamber', a lump of coal rolled down from the heap and struck him, inflicting injuries from which he died within a few hours. Inspection and inquiry made.

126	2nd April, 12-30 A.M.	Titilmuri Mine, Sijua P. O., Bihar and Orissa.	Titilmuri Collieries, Ltd.	Chilangi Boy, (m.), 30, <i>Coal cutter.</i>	Coal	Deceased was at work in the face of a narrow gallery, 155 feet long \times 3' 6" high \times 3' wide, driven to the full rise, on a slope of 1 in 2, for the purpose of making a connection with an adjacent mine. When connection was effected by means of a blow from a pick, a rush of air and a small quantity of water came through the hole and blew out their candles. Deceased apparently became alarmed and ran down the steep slope. His body was found later at the lower end of the gallery. The medical evidence was that death was probably due to heart failure caused by exhaustion. His two mates remained where they were, and after enlarging the hole with the pick, got out through the connection. Inspection and inquiry made.
127	10th April, 11-30 A.M.	Tirody Mine, Balasghat P. O., Central Provinces.	Rao Sahib W. Laxminarayan.	Sudu Purdan, (m.), 65, <i>Coolie.</i>	Manganese	Deceased and some other coolies were ordered by the mate in charge to stop work whilst another coolie rolled a tree down the steps where they were working. For some unknown reason; deceased returned and was struck by the tree. He died the following day.
128	12th April, Noon.	Shekpur Mine, Charanpur P. O., Bengal.	Minto Coal Co., Ltd.	Basini Bauri, (f.), 13, <i>Mason's kamis.</i>	Coal	Deceased, who had been alarmed by some shouting, ran out of a gallery and tripped over some bricks at the entrance. She fell under an approaching loaded tub, the front wheels of which ran over her left leg and caused a compound fracture. She died four days later from heart failure consequent upon shock. Inspection and inquiry made.
129	27th April, 9 A.M.	Loyabadi Mine, Bangjora P. O., Bihar and Orissa.	Barakar Coal Co., Ltd.	Bhudan Manjhi, (m.), 32, <i>Coal cutter.</i>	Coal	Whilst deceased was walking out of the mine, up a slope of 1 in 5, he was attacked by illness, probably epilepsy. He fell backwards and his head struck a sharp ledge on the edge of a coal pillar. The base of his skull was fractured and he died on the spot. Inspection and inquiry made.
130	29th May, 2 P.M.	Namdang Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Radha Bhumij, (f.), 30, <i>Tub pusher.</i>	Coal	Deceased was employed in carrying a safety lamp for two tub pushers on a tram road. Whilst she was walking behind a tub, which was being pushed out, she was crushed against the side of the road by a following tub which had got out of control, owing to the breaking of a wooden sprag. She sustained injuries to which she succumbed five weeks later. Inquiry made.
131	25th July, 10 A.M.	Dandot Mine, Dandot P. O., Panjab.	Thakur Dass Ramji Dass	Kalu, (m.), 14, <i>Stone coolie.</i>	Coal	Deceased fell down at the approach of some tubs and died four hours after being brought to the surface, probably from heart failure. It is doubtful whether he was actually touched by the tubs.
132	3rd August, 3 P.M.	Serampur Mine, Giridih P. O., Bihar and Orissa	East Indian Railway Co.	Ganpat Chamar, (m.), 40, <i>Miner.</i>	Coal	A workman prised down a piece of coal, measuring 4' \times 3' 6" \times 3'. It rolled down a steep side of a fall of coal in the goaf and in its path it collided with a prop, 21 feet long, knocking it out. The prop struck deceased on the head causing fracture of the skull, from the effects of which he died about five hours later. Inspection and inquiry made.
133	7th August, 7 A.M.	Bejdih Mine, Sitarampur P. O., Bengal.	Equitable Coal Co., Ltd.	Prasanna Baurin, (f.), 45, <i>Bailing kamis.</i>	Coal	Deceased was sleeping by the side of a tramming level, with her left leg lying over a rail. A loaded tub came along and grazed her leg, causing a severe and dirty lacerated wound. Gangrene set in and she died sixty days later. Inspection and inquiry made.
134	4th November, 8-30 P.M.	North Kustore Mine, Kustore P. O., Bihar and Orissa.	Raniganj Coal Association, Ltd.	Meghni Turini, (f.), 24, <i>Coal carrier.</i>	Coal	Whilst deceased was pushing a loaded tub down a slight grade, a coal cutter following behind with another tub, overtook her. The second tub ran over her and she sustained injuries from which she died two days later. Inspection and inquiry made.

APPENDIX II—contd.

Fatal Accidents, 1915—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
SUNDRIES UNDERGROUND—contd.						
135	2nd December, 10 A.M.	Jibutil Mine, Morriston P. O., Madras.	Jibutil (Anantapur) Gold Mines, Ltd.	Raicherla Marrigadu, (m.), 34, <i>Stuff cooler.</i>	Gold	Deceased, while tramping with two others, was pulling the tub from in front instead of pushing it from behind. He got caught between the tub and the props on the side of the level. His chest was crushed and he was killed.
136	4th December, 8-15 A.M.	Old West Ledo Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Surai Chamar, (m.), 22, <i>Mason's labourer.</i>	Coal	Deceased was one of a gang of labourers, regularly employed in cooling, by means of water, an arching, which shut off an old fire on a haulage road. Whilst engaged in throwing water on the hot sand behind the arching, he was scalded by a rush of steam and succumbed to his injuries four days later. Inquiry made.
137	8th December, 5-30 A.M.	Jharia Khas Mine, Jharia P. O., Bihar and Orissa.	Standard Coal Co., Ltd.	Sida Bilaspuri, (m.), 25, <i>Coal cutter.</i>	Coal	Whilst a miner in a pillar cutting district was getting down roof coal, a large lump of coal fell against a prop, 19 feet in length, and knocked it out. The upper end of the prop struck deceased on the head and killed him instantly. Inspection and inquiry made.
SURFACE MACHINERY—(5 deaths).						
138	12th January, 3-30 P.M.	Ghusik Mine, Kalipahari P. O., Bengal.	Ghusik and Muslia Collieries, Ltd.	Fulu Hazra, (m.), 55, <i>Coolie.</i>	Coal	Whilst lowering a Lancashire boiler down the slope of a railway embankment, by means of a hand winch which was not provided with a brake, the boiler overpowered the twelve men at the handles. The wheels commenced to revolve at a great speed. Deceased was caught by one of the handles and sustained injuries from the effects of which he died six hours later. Inspection and inquiry made. <i>See Report, page 10.</i>
139	7th September, 2 P.M.	Sijua Mine, Sijua P. O., Bihar and Orissa.	Sijua Coal Co., Ltd.	Parshotam Latore, (m.), 35, <i>Labourer.</i>	Coal	A double purchase crab winch, geared at 54 to 1, was being used for rolling a Lancashire boiler, weighing 15 tons, up a slope of 1 in 3 on to an embankment, 8 feet high. Owing to the excessive strain set up when the flanges of the boiler touched the ground, the foundation bolts of the winch broke, the machine overturned and was jerked forward by the weight of the boiler when it rolled backward. The eight men turning the handles of the winch were hurled to the ground and deceased, who was one of them, received such severe injuries that he died a few hours later. Inspection and inquiry made. <i>See Report, page 10.</i>
140	9th September, 11-30 A.M.	Burelia Mine, Chora P. O., Bengal.	Burelia Coal Co., Ltd.	Domon Bauri, (m.), 40, <i>Coolie.</i>	Coal	Deceased was struck on the head by the driving belt of a screening plant. <i>Tetanus</i> set in and he died four days later. Inspection and inquiry made. <i>See Report, page 10.</i>
141	28th September, 2-45 P.M.	Lodna Mine, Jharia P. O., Bihar and Orissa.	Lodna Colliery Co., Ltd.	Suker Sirdar, (m.), 35, <i>Labourer.</i>	Coal	Whilst deceased was feeding black coal into a disintegrating machine, one of the cast iron gear pulleys, 4' in diameter × 8' wide × 3" thick, flew to pieces and he was killed on the spot by a flying fragment. Inspection and inquiry made.

142	6th November, 1 P.M.	Serampur Mine, Giridih P. O., Bihar and Orissa.	East Indian Railway Co.	Bedo Kumbar, (m.), 18, <i>Screener.</i>	Coal	Deceased was climbing along some girders in a screening plant while the machinery was in motion and fell into the elevator. He was crushed severely and died twenty-one days later. Inspection and inquiry made.
SURFACE BOILERS OR PIPES BURSTING—						
(1 death).						
143	3rd December, 9-5 A.M.	Malkera-Choitodih Mine, Katrasgarh P. O., Bihar and Orissa.	Tata Iron and Steel Co., Ld.	Panu Lohar, (m.), 35, <i>Enginewright.</i>	Coal	Whilst working alone at a steam pump in a ledge at the bottom of a shaft, 350 feet deep, deceased turned on the steam without first opening the drain cock. Water hammer occurred and the steam valve was blown to pieces. Deceased received injuries to which he succumbed two days later. Inspection and inquiry made.
ON SURFACE RAILWAYS AND TRAMWAYS						
BELONGING TO THE MINE—(7 deaths).						
144	6th February, 4 P.M.	Sowardih Mine, Bhujudih P. O., Bihar and Orissa.	Sowardih Coal Co.	Panchu Mullick, (m.), 45, <i>Tramming coolie.</i>	Coal	Whilst deceased was pushing a tub on a surface tram line, he slipped and fell and was run over by another loaded tub, which was following and which was being pushed by another trammer. His leg was amputated but he died three days later. Inspection and inquiry made.
145	16th February, 10-30 A.M.	Samla-Kendra Mine, Pandavagarh P. O., Bengal.	Samla and Kendra Collieries Syndicate, Ld.	Rajnandan Singh, (m.), 20, <i>Dak poon.</i>	Coal	Deceased, in boarding the blind side of a locomotive, which was leaving a siding, was trapped between it and the rear tub of a set standing on another pair of rails. He received injuries from which he died a few hours later. Inspection and inquiry made.
146	15th April, 6 P.M.	Lakorka Mine, Katrasgarh P. O., Bihar and Orissa.	Lakorka Coal Co., Ld.	Dobari Gope, (m.), 23, <i>Trammer.</i>	Coal	Deceased was pushing an empty tub on a surface tram line and on the approach, from behind, of a set of loaded tubs on a parallel tub line he appears to have lost his presence of mind and to have run in front of the set. He was run over and received injuries to which he succumbed two days later. Inspection and inquiry made.
147	28th April, 11-30 P.M.	Kurbarbari Mine, Giridih P. O., Bihar and Orissa.	East Indian Railway Co.	Jagannath Chamar, (m.), 30, <i>Miner.</i>	Coal	Deceased was lying across the rails of a metre-gauge line on a bridge, when he was run over and killed by a locomotive and train. He was probably asleep at the time. Inspection and inquiry made.
148	3rd May, 6-30 P.M.	Sudamdih Mine, Bhujudih P. O., Bihar and Orissa.	Sudumdih Coal Co., Ld.	Nagwya Bhuia, (m.), 10, <i>Coal picker.</i>	Coal	Deceased was run over by a set of loaded tubs, which was being hauled along a level tub line by a pair of buffaloes. He died nine hours later. It is presumed that the boy was riding on the tubs, but no one saw him doing so. The practice is forbidden. Inspection and inquiry made.
149	27th August, 5 P.M.	Serampur Mine, Giridih P. O., Bihar and Orissa.	East Indian Railway Co.	Chattar Meah, (m.), 55, <i>Trolleyman.</i>	Coal	Deceased was crushed between two loaded tubs at a pit bank tippler. In lowering the first tub to the tippler he omitted to transfer its locker to the second tub. He succumbed to his injuries six hours later. Inspection and inquiry made.
150	25th December, 11 A.M.	Jainty Mine, Karmataur P. O., Bihar and Orissa.	Villiers Colliery Co., Ld.	Nehal Meah, (m.), 36, <i>Trolleyman.</i>	Coal	While four men were lowering a set of eight empty tubs on a surface tub line, dipping 1 in 23, an empty tub ran uncontrolled behind and crushed deceased against the set. He died twelve days later from his injuries; the other men jumped aside and escaped. Inspection and inquiry made.

APPENDIX II—contd.

Fatal Accidents, 1915—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
MISCELLANEOUS ON SURFACE—(24 deaths).						
151	28th January, 3-30 P.M.	Hpaungdaw Mine, Tavoy P. O., Burma.	Quah Cheng Guan	Mahomed Gul, (m.), 25, <i>Miner.</i>	Wolfram	Deceased was leaving an adit in which he had been working, against orders, and was buried under a fall of earth, which occurred at the mouth of the adit and was suffocated.
152	3rd April, 4 P.M.	Sudamdih Mine, Bhujudih P. O., Bihar and Orissa.	Sudamdih Coal Co., Ltd.	Jomona Mahato, (f.), 36, <i>Earth cutter.</i>	Coal	While a gang of coolies was engaged in removing a spoil heap, some of them sat down in the shade afforded by a vertical face of earth 9 feet high. Whilst they were sitting smoking a mass of about 2 tons of earth fell upon them. Deceased sustained a fracture of the spine and died a few hours later. A girl sustained a broken leg and internal injuries. Inspection and inquiry made.
153	20th April, 6-30 P.M.	Monoharbahal Mine, Asansol P. O., Bengal.	Baraboni Coal Concern, Ltd.	Behari Dome, (m.), 35, <i>Earth cutter.</i>	Coal	Deceased was bailing water out of a bridge foundation trench. Whilst so engaged a mass of earth fell from one of the sides upon him and inflicted an injury to the spinal cord. He died two and a half hours later from heart failure consequent upon convulsions caused by the nature of his injury. Inspection and inquiry made.
154	26th April, 12-30 P.M.	Chitidand Mine, Golpur P. O., Panjab.	Panjab Coal Co.	Abdul Halim, (m.), 13; Usaf, (m.), 13, <i>Miscellaneous men.</i>	Coal	The two deceased were sitting by the side of a mine tramway, under the shadow of a hill, when a landslip took place and a portion of the side of the hill, measuring 17' in length × 15' in height × 6' in thickness, fell upon them and killed them. Inspection and inquiry made.
155	25th May, 8 P.M.	Begunia Khas Mine, Barakar P. O., Bengal.	The Hon'ble Maharaj Sir Manindra Chandra Nandi.	Bada Balf Sircar, (m.), 20, <i>Store-keeper babu</i> ; Jagal Bauri, (m.), 13, <i>Store coolie.</i>	Coal	The two deceased were burned to death in an oil godown. There is no evidence to show how the fire originated. Inspection and inquiry made. <i>See Report, page 10.</i>
156	13th June, 1-30 P.M.	Kessabgunj Mine, Kalipahari P. O., Bengal.	Gunpat Ram Marwari	Mahan Bauri, (m.), 45, <i>Head khalasi.</i>	Coal	Deceased who suffered from a complaint of the lungs, was taken with a violent fit of coughing whilst standing on the top of a vertical boiler. In attempting to reach the ground he fell from a height of 11' 6". He was picked up unconscious and remained in this condition until death ensued half an hour later. In the absence of medical opinion death is assumed to be due to natural causes but accelerated by shock. Inspection and inquiry made.
157	5th July, 11 A.M.	Chitidand Mine, Golpur P. O., Panjab.	Panjab Coal Co.	Khuda Bux, (m.), 42, <i>Coolie.</i>	Coal	Deceased was ordered to drill a hole in a stone, measuring 14' × 8' × 8', in the side of a hill; instead of drilling a hole he attempted to loosen it from underneath, when it suddenly fell over on to him killing him on the spot.
158	10th August, 2 P.M.	Chooling Mine, Maliwun P. O., Burma.	Burma Development Syndicate, Ltd.	Bahi Singh, (m.), 35, <i>Coolie.</i>	Tin	Whilst deceased was working in an open cut excavation he slipped and fell 30 feet on to his head, breaking his neck.

159	12th August, 10-30 A.M.	Bhelatand Mine, Sijua P. O., Bihar and Orissa.	Tata Iron and Steel Co., Ld.	Dhuma Singh, (m.), 25, <i>Labourer.</i>	Coal	Whilst deceased and two other men were at work inside an empty boiler they were scalded by an inrush of steam. The steam came through a blow-off pipe, which was connected to the blow-off pipe of another boiler, which was under steam. Deceased died four hours later. The other two men were only slightly injured. Inspection and inquiry made. <i>See Report, page 11.</i>
160	22nd August, 5 P.M.	Square Iqy Mine, Kodarma P. O., Bihar and Orissa.	L. Narayan	Gunpal Musohar, (m.), 16, <i>Coolie.</i>	Mica	Deceased was removing <i>debris</i> from an excavation and fell about 5 feet on to a stone. He fractured his jaw and died a few hours later.
161	31st August, 3-30 A.M.	Chanda Mine, Jharis P. O., Bihar and Orissa.	R. A. Mucadum & Sons	Bidi Baurin, (f), 35 ; Chandni Baurin, (f), 25 ; Dhami Baurin, (f), 16 ; <i>Coal carriers ;</i> Bijai Bauri, (m.), 33 ; Beni Bauri, (m.), 45 ; Jadu Bauri, (m.), 35 ; <i>Coal cutters ;</i> Gora Bauri, (m.), 6 ; Suka Bauri, (m.), 4 ; Niri Baurin, (f), 1 ; Sundra Bauri, (m.), 6, <i>Not employed.</i>	Coal	Whilst the ten deceased were asleep in their houses a collapse of the underground workings took place. The surface subsided over an area, measuring 135' x 85', and the half of a coolie barrack, 160 feet in length, fell into the cavity. The deceased were killed by the falling masonry and roof of the barrack. Three of the bodies were not recovered. Inspection and inquiry made. <i>See Report, page 11.</i>
162	10th September, 9-30 A.M.	Byaukchoung Mine, Tavoy P. O., Burma.	Tavoy Concessions, Ld.	Darni Singh, (m.), 34, <i>Coolie.</i>	Wolfram	Deceased was sitting at the bottom of an earth bank which was insufficiently sloped. About 3 tons of earth fell on to him from a height of about 7 feet and he was suffocated.
163	16th December, 3 A.M.	Sutikdih Mine, Bhujudih P. O., Bihar and Orissa.	Sutikdih Coal Co., Ld.	Gaya Rai, (m.), 22, <i>Banksman.</i>	Coal	Deceased was sleeping beside a fire which he had made himself near a tram line. His clothes caught fire and he was burned succumbing to his injuries a fortnight later.

APPENDIX II—*contd.*

Fatal Accidents, 1915—*conold.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Reason for exclusion.	Cause of accident and remarks.
DEATHS NOT INCLUDED IN THE STATISTICS—<i>conold.</i>							
21.	14th October, About 4 P.M.	Chanoh Mine, Barakar P. O., Bihar and Orissa.	Bengal Coal Co., Ld.	Suti Manjhian, (f.), 20, <i>Coal-carrier</i> ; Budhan Manjhi, (m.), 2, <i>Not employed.</i>	Coal	Not a mining accident.	The two deceased, who were mother and child, were found drowned in an old shaft. Inspection and inquiry made.
22	4th December, 2 P.M.	Baraboni Mine, Asansol P. O., Bengal.	New Beerbhum Coal Co., Ld.	Lakheswar Hazra, (m.), 6.	Coal	Not employed	Deceased climbed the fence wall and fell into a feed water tank containing water 5' 0" deep and was drowned. Inspection and inquiry made.
23	16th December, 3 A.M.	Simlabahal Mine, Jharia P. O., Bihar and Orissa.	Bhalgora Coal Co., Ld.	Bhattu Bhuia, (m.), 50, <i>Coal cutter.</i>	Coal	Not a mining accident.	After filling two tubs in a well ventilated gallery in the mine, deceased, who was an old man, lay down to sleep in the gallery. Some hours later the sirdar found him dead. Death appears to have been due to natural causes. The <i>post-mortem</i> examination showed that he had suffered from lung trouble. Inspection and inquiry made.
24	20th December, Noon.	Charanpur Mine, Charanpur P. O., Bengal.	Apcar & Co.	Talu Manjhian, (f.), 3½.	Coal	Not employed	Deceased climbed the fence wall and fell into a feed water tank containing water 6' 6" deep and was drowned. Inspection and inquiry made.
25	Not known.	Tikuri Mine, Katni P. O., Central Provinces.	Katni Cement and Industrial Co., Ld.	Jograim Katchin, (f.), 30, <i>Labourer.</i>	Bauxite	Not employed	Deceased was found drowned in an abandoned incline.

APPENDIX II—contd.

Table No. 2.

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, 1901, during the year 1915.

PROVINCE.	District and mineral field.	Total average number of persons employed daily.	FATAL ACCIDENTS.				SERIOUS ACCIDENTS.				DEATH-RATE PER 1,000 PERSONS EMPLOYED.		
			Number of separate fatal accidents.	NUMBER OF DEATHS.		Total deaths.	Number of serious non-fatal accidents.	NUMBER OF PERSONS SERIOUSLY INJURED.		Total number of persons injured.	Below ground.	Above ground.	Below and above ground.
				Below ground.	Above ground.			Below ground.	Above ground.				
A.—COAL.													
Assam	Lakhimpur	2,767	22	25	...	25	95	87	14	101	13.28	...	6.08
	Naga Hills	112	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	2,879	22	25	...	25	95	87	14	101	13.28	...	6.08
Baluchistan	Kalat	37	...	...	...	...	...	...	...	...	...	...	...
	Loralai, Loralai	28	...	...	...	...	...	...	...	...	...	...	...
	Quetta, Pishin	110	...	...	...	...	...	...	...	...	...	...	...
	Sibi, Khost, etc.	793	3	3	...	3	4	3	1	4	6.24	...	3.78
	TOTAL	968	3	3	...	3	4	3	1	4	5.07	...	3.13
Bengal	Bankura, Raniganj	71	...	...	...	...	...	...	...	...	...	...	...
	Birbhum "	28	...	...	...	...	...	...	...	...	...	...	...
	Burdwan "	41,994	40	39	7	46	41	38	3	46	1.39	.50	1.10
	TOTAL	42,098	40	39	7	46	41	38	3	46	1.38	.50	1.09
Bihar and Orissa	Hazaribagh { Bokaro- Ramgarh. Giridih	112	...	...	...	...	1	...	1	1	...	...	...
	Jharria	2,011	...	...	...	...	3	...	3	3	...	...	...
	Manbhum, Jharria	76,346	58	53	19	72	48	36	15	51	1.08	.69	.94
	" Raniganj	5,006	3	3	...	3	7	5	2	7	.86	...	.60
	Palaman, Daltonganj	855	...	...	...	...	1	1	...	1	...	...	...
	Sambalpur, Hingir-Rampur	648	1	1	...	1	...	...	...	...	2.32	...	1.54
	Sonthal Parganas, Jainty	1,106	1	...	1	1	...	...	...	...	...	1.11	.90
	" Raniganj	81	...	...	...	...	...	...	...	...	...	...	...
TOTAL	95,120	69	60	28	88	76	55	24	79	.97	.69	.67	
Burma	Bhamo	16	...	...	...	...	...	...	...	...	...	...	...
Central Provinces	Chanda, Ballarpur	838	...	...	...	...	1	1	...	1	...	...	...
	Chhindwara, Fench Valley	1,118	1	1	...	1	4	3	1	4	1.22	...	.89
	Narsinghpur, Mohpani	1,220	2	2	...	2	3	1	2	3	2.49	...	1.64
	Yectmal	19	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	3,184	3	3	...	3	3	5	3	3	1.38	...	.94
North-West Frontier Province.	Hazara	9	...	...	...	...	...	...	...	...	...	...	...
Panjab	Jhalum	1,022	5	3	3	6	1	1	...	1	4.48	3.52	5.87
	Mianwali	89	...	...	...	...	...	...	...	...	...	...	...
	Shahpur	182	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	1,273	5	3	3	6	1	1	...	1	3.56	3.98	4.71
GRAND TOTAL (COAL)		145,587	142	138	38	166	225	189	50	239	1.39	.86	1.14

APPENDIX II—contd.

Table No. 2—concl'd.

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, 1901, during the year 1915—concl'd.

PROVINCES.	District and mineral field.	Total average number of persons employed daily.	FATAL ACCIDENTS.				SERIOUS ACCIDENTS.			DEATH-RATE PER 1,000 PERSONS EMPLOYED.			
			Number of separate fatal accidents.	NUMBER OF DEATHS.			Number of serious non-fatal accidents.	NUMBER OF PERSONS SERIOUSLY INJURED.			Below ground.	Above ground.	Below and above ground.
				Below ground.	Above ground.	Total deaths.		Below ground.	Above ground.	Total number of persons injured.			
M.—COPPER ORE.													
Bihar and Orissa	Singhbhum	1,424	1	1	...	1	2	1	1	2	2.25	...	.70
Burma	Kathe	25	...	...	...	...	...	...	...	...	...	...	...
	Kyaukse	81	1	1	...	1	3	2	1	3	23.26	...	12.35
	Lower Chindwin	816	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	422	1	1	...	1	3	2	1	3	3.72	...	2.37
	GRAND TOTAL (COPPER)	1,846	2	2	...	2	5	3	2	5	2.30	...	1.08
N.—BAUXITE.													
Central Provinces	Jabalpur	41	...	...	...	...	...	...	...	...	...	...	...
O.—CLAY.													
Bihar and Orissa	Manbhūm	65	...	...	...	...	...	...	...	...	...	...	...
	Palaman	29	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	94	...	...	...	...	...	...	...	...	...	...	...
Central Provinces	Jabalpur	250	...	...	...	...	...	...	...	...	...	...	...
	GRAND TOTAL (CLAY)	344	...	...	...	...	...	...	...	...	...	...	...
P.—GALENA.													
Central Provinces	Drug	37	...	...	...	...	...	...	...	...	...	...	...
Q.—TIN.													
Bihar and Orissa	Hezeribagh	7	...	...	...	...	...	...	...	...	...	...	...
Burma	Mergui (Maliwan)	27	1	...	1	1	...	...	...	...	...	0.00	37.04
	Tavoy	...	...	...	...	...	...	...	...	...	...	...	...
	GRAND TOTAL (TIN)	34	1	...	1	1	...	...	...	...	...	0.00	26.47
R.—STEATITE.													
Madras	Kurnool	12	...	...	...	...	...	...	...	...	...	...	...
	GRAND TOTAL (STEATITE)	12	...	...	...	...	...	...	...	...	...	...	...
S.—FULLER'S EARTH.													
Central Provinces	Jabalpur	5	...	...	...	...	...	...	...	...	...	...	...
	GRAND TOTAL (ALL MINERALS)	180,088	163	151	37	188	258	204	68	272	1.28	.80	1.04

* Figures included with those of Tavoy wolfram.

† Figures included with those of Jabalpur limestone.

APPENDIX II—contd.

Table No. 3.

Statement of fatal accidents in mines regulated by the Indian Mines Act, 1901, during the year 1915, classified according to the age and sex of the workers.

MINERAL.	PROVINCE AND MINERAL FIELD.	Number of separate fatal accidents.	NUMBER OF DEATHS.								TOTAL BELOW AND ABOVE GROUND.	
			BELOW GROUND.				ABOVE GROUND.					
			Adult males.	Adult females.	Children (under 15).	TOTAL.	Adult males.	Adult females.	Children (under 15).	TOTAL.		
COAL	Assam, Lakhimpur	22	22	8	...	25	...	...	...	...	25
	Baluchistan, Sibi	3	3	...	...	3	...	...	...	...	3
	Bengal, Raniganj	40	29	9	1	89	7	...	...	7	40
	Bihar and Orissa. {	Giridih	6	3	3	3	3	6
		Jainty	1	1	1	1
		Jharra	58	48	10	...	56	10	4	5	19	72
		Manbhum, Raniganj, Sambalpur, Hingir Rampur.	3	1	2	...	3	3
	TOTAL BIHAR AND ORISSA	1	1	...	...	1	...	...	...	...	1
	Central Provinces {	Chhindwara	1	1	1	1
		Narsinghpur	2	...	2	...	2	2
	TOTAL CENTRAL PROVINCES	3	1	2	...	3	...	...	...	...	3
Panjab, Jhelum	5	3	...	...	3	3	...	...	...	3	6
TOTAL COAL	142	106	26	1	133	24	4	5	33	166		
MICA	Bihar and Orissa. {	Gaya	1	1	...	...	1	...	...	...	1
		Hazaribagh	4	3	3	1	1	4
	TOTAL BIHAR AND ORISSA	5	4	...	...	4	1	...	...	1	5
Rejputana, Ajmer	1	1	...	...	1	...	...	...	...	1	
TOTAL MICA	6	5	...	...	5	1	...	...	1	6	
MANGANESE	Central Provinces {	Balaghat	1	1	...	...	1	...	...	...	1
		Chhindwara	1	...	1	...	1	...	...	...	1
TOTAL CENTRAL PROVINCES	2	1	1	...	2	...	...	...	...	2	
GOLD	Madras, Anantapur	5	5	...	...	5	...	...	...	5	
WOLFRAM	Burma, Tavoy	5	4	...	...	4	2	...	...	2	6
COPPER	Bihar and Orissa, Singhbhum {	Burma, Kyaukse	1	1	...	...	1	...	...	...	1
		Burma, Kyaukse	1	1	...	...	1	...	...	...	1
TOTAL COPPER	2	2	...	...	2	...	...	...	...	2	
TIN	Burma, Mergui	1	...	...	...	...	1	...	...	1	
GRAND TOTAL (ALL MINERALS)		163	123	27	1	151	23	4	5	37	193	

APPENDIX II—*concl'd.*

Table No. 4.

Statement of fatal accidents in mines regulated by the Indian Mines Act, 1901, during the year 1915, classified according to cause of accident.

MINERAL WORKED.	Number of separate fatal accidents.	NUMBER OF PERSONS KILLED.											DEATH-RATE PER 1,000 PERSONS EMPLOYED.		
		Explosions of fire-damp.	Falls of roof.	Falls of sides.	In shafts.	Suffocation by gases.	By explosives.	Impactions of water or falling into water.	Struck.	Miscellaneous below ground.	Surface.	Total deaths.	Below ground.	Above ground.	Below and above ground.
Coal	142	1	49	36	15	...	8	2	16	11	39	166	1.39	.66	1.14
Manganese	2	...	...	...	...	...	...	1	...	1	...	2	.27	...	.20
Mica	6	...	1	2	...	...	1	...	1	...	1	6	.77	.23	.56
Gold	5	...	...	...	2	...	2	...	...	1	...	5	4.97	...	2.81
Wolfram	5	...	...	4	...	...	...	...	...	...	2	6	2.30	1.38	1.88
Copper	2	...	1	...	...	...	1	...	...	...	...	2	2.80	...	1.08
Tin	1	...	...	...	...	...	...	...	...	...	1	1	...	0.00	26.47
TOTAL 1915	163	1	51	42	17	...	7	3	17	13	37	188	1.23	.60	1.04
TOTAL PRECEDING YEAR.	152	1	48	47	22	1	16	8	21	10	17	191	1.45	.26	1.03
DIFFERENCE	+11	...	+3	-5	-5	-1	-9	-5	-4	+3	+20	-3	-17	+34	+01

APPENDIX III.

PROSECUTIONS UNDER THE MINES ACT.

Statement of prosecutions instituted under the Indian Mines Act, 1901, during the year 1915.

Province.	District.	Number of prosecutions.	Number of persons prosecuted.	Number convicted.	Numbers of rules and sections of the Act contravened.	REMARKS.
Bihar and Orissa	Manbhum	1	1	1	Section 20, Rule 12 of Notification No. 864-68-20, dated 10th March 1904.	Proceedings instituted during 1914, but cancelled in 1915.
	Do.	1	2	1	Section 20, Rules 2 (g), 7 and 8 of Notification No. 864-68-20, dated 10th March 1914.	Do.
	Do.	1	1	1	Section 20, Rule 12 of Notification No. 864-68-20, dated 10th March 1904.	Do.
Bengal	Burdwan	1	1	1	Section 20, Rule 19 of Notification No. 864-68-20, dated 10th March 1904, and Rule 8 of Notification No. 11798-103, dated 30th December 1908.	Do.
	Do.	1	1	1	Section 20, Rule 2 of Notification No. 11798-103, dated 30th December 1908.	
Central Provinces	Chhindwara	1	1	1	Section 20, Rule 24 of Notification No. 864-68-20, dated 10th March 1904.	
Bengal	Burdwan	1	1	1	Indian Mines Act, 1901, Section 13 (1).	
Bihar and Orissa	Manbhum	1	1	1	Section 20, Rule 1 of Notification No. 11798-103, dated 30th December 1908.	
	Do.	1	1	1	Ditto ditto.	
Bengal	Burdwan	1	1	1	Section 20, Rule 19 of Notification No. 864-68-20, dated 10th March 1904.	
Bihar and Orissa	Manbhum	1	1	...	Section 20, Rule 2 of Notification No. 11798-103, dated 30th December 1908.	Time-barred.
Madras	Nellore	1	1	...	Section 20, Rule 1 of Notification No. 11798-103, dated 30th December 1908.	Withdrawn.
Bihar and Orissa	Manbhum	1	1	...	Section 20, Rule 19 of Notification No. 864-68-20, dated 10th March 1904.	Proceedings dropped.
	Do.	1	1	...	Ditto ditto	Do.
Bengal	Burdwan	1	1	1	Section 20, Rules 2 (g) and 4 (b) of Notification No. 864-68-20, dated 10th March 1904.	
Bihar and Orissa	Hazaribagh	1	1	1	Section 20, Rule 1 of Notification No. 11798-103, dated 30th December 1908.	
	Do.	1	1	1	Ditto ditto.	
	Do.	1	1	1	Ditto ditto.	
	Do.	1	1	1	Ditto ditto.	
Bengal	Burdwan	1	1	1	Section 20, Rule 1 of Notification No. 864-68-20, dated 10th March 1904.	

APPENDIX III—concl'd.

PROSECUTIONS UNDER THE MINES ACT—concl'd.

Statement of prosecutions instituted under the Indian Mines Act, 1901, during the year 1915.

PROVINCE.	District.	Number of prosecutions.	Number of persons prosecuted.	Number convicted.	Numbers of rules and sections of the Act contravened.	REMARKS.
Bihar and Orissa	Manbhum	1	1	1	Indian Mines Act, 1901, Section 13 (1) and Section 20, Rule 45 of Notification No. 2968-82, dated 21st April 1906.	
	Do.	1	1	1	Section 20, Rule 1 of Notification No. 11793-103, dated 30th December 1908.	
	Do.	1	1	1	Ditto ditto.	
Bengal	Burdwan	1	1	1	Ditto ditto.	
	Manbhum	1	1	1	Ditto ditto.	
	Do.	4	4	4	Section 20, Rules 3, 9 and 19 of Notification No. 864-68-20, dated 10th March 1904.	
Bihar and Orissa	Do.	1	1	1	Indian Mines Act, 1901, Section 13 (1).	
	Do.	1	1	1	Section 20, Rule 2 of Notification No. 11793-103, dated 30th December 1908, and Rule 19 of Notification No. 864-68-20, dated 10th March 1904.	
	Do.	1	1	1	Section 20, Rules 3, 7 and 19 of Notification No. 864-68-20, dated 10th March 1904.	
Bengal	Burdwan	1	1	...	Section 20, Rule 1 (a) of Notification No. 864-68-20, dated 10th March 1904, and Rule 50 of Notification No. 2968-82, dated 21st April 1906.	Not tried in 1915.

APPENDIX IV.
MISCELLANEOUS.

Statement No. 1.

List of Inspection Circles.

No. 1 Circle.	No. 2 Circle.	No. 3 Circle.
(a) All mines in the district of Manbhum, which are situated west of a line drawn from Adra Junction at mile 175 of the Bengal-Nagpur Railway to Gobindpur at mile 169 on the Grand Trunk Road and continued across the district in each direction, and all mines in the district of Palamanu.	(a) All mines in the districts of Burdwan and Bankura to the west of a line drawn from mile 131 on the East Indian Railway main line near Asansol to mile 141 on the Ondal loop near Gaurangdi, and continued across the districts in each direction; and all mines in the district of Manbhum east of a line drawn from Adra Junction at mile 175 on the Bengal-Nagpur Railway to Gobindpur at mile 169 on the Grand Trunk Road, and continued across the district in each direction, and all mines in the districts of Hazaribagh, Gaya, Monghyr, Darjeeling and Ranchi.	(a) All mines in the districts of Burdwan and Bankura to the east of a line drawn from mile 131 on the East Indian Railway main line near Asansol to mile 141 on the Ondal loop near Gaurangdi, and continued across the districts in each direction, and all mines in the districts of the Southal Parganas, Birbhum, Singhbhum and Sambalpur.
(b) All mines in Assam	(b) All mines in Baluchistan	(b) All mines in the Presidency of Bombay.
(c) All mines in Burma	(c) All mines in the United Provinces	(c) All mines in the Central Provinces.
	(d) All mines in the Panjab	(d) All mines in the Presidency of Madras.
	(e) All mines in Ajmer-Merwara.	

Statement No. 2.

List of holders of certificates as managers of coal-mines in British India.

(a) Certificates granted to holders of English certificates of competency.

FIRST CLASS.

NAME.	No. of Indian certificate.	Date of Indian certificate.	No. of English certificate.	Date of English certificate.
Bigg, John Wilson	190	4th March 1915	3506	30th December 1909.
London, James	191	Ditto	2443	8th June 1904.
Jack, George S.	192	Ditto	3737	22nd December 1910.
Beckett, Willis	193	Ditto	3478	22nd July 1909.
Thomas, Thomas John	194	Ditto	3724	14th October 1910.
Taylor, William Alexander	195	Ditto	3639	9th June 1910.
Buchanan, James	196	Ditto	3803	13th June 1911.
Bell, John Valentine	197	Ditto	3768	1st March 1911.
Dickinson, William	198	Ditto	3773	1st March 1911.
Angus, William	199	17th March 1915	3798	13th June 1911.
Thornton, James Brownlee	200	Ditto	3848	13th June 1911.
Tallack, Charles Cragoe	201	10th April 1915	103	2nd February 1914.
Oswald, Ernest William	202	11th December 1915	222	22nd July 1915.
Langley, Elijah	203	Ditto	3061	31st December 1907.
Burgoyne, George Ormerod	204	Ditto	2844	2nd July 1906.

SECOND CLASS.

Hunter, George	22	11th December 1915	3154	16th June 1897.
Edwards, David Lewis	23	Ditto	7013	2nd July 1909.

APPENDIX IV—*contd.*

MISCELLANEOUS.

Statement No. 2—*concl'd.*List of holders of certificates as managers of coal mines in British India—*concl'd.*

(b) Certificates of Competency.

FIRST CLASS.

NAME.	No. of certificate.	Date of certificate.	REMARKS.
Das, Debendra Nath	78	10th April 1915.	
Knyvett, Godfrey Denzil	79	Ditto.	
White, Edward Beadon Deveria	80	Ditto.	
Mukherji, Dinesh Chandra	81	Ditto.	
Power, Clarence Eustace	82	Ditto.	

SECOND CLASS.

Nag, Hemanta Kumar	110.	10th April 1915.	
Lawton, Henry	111	Ditto.	
O'Reilly, Denis Edward	112	Ditto.	
Penfold, Douglas Kent	113	Ditto.	
Campbell, Archibald	114	Ditto.	
Naravane, Shankar Govind	115	Ditto.	
Kolya, Narayan Chandra	116	Ditto.	
Mukherji, Keshob Chandra	117	Ditto.	

(c) Certificate of Service.

FIRST CLASS.

Robertson, Ivanhoe George Chersley	138	10th March 1915.	
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APPENDIX IV—contd.

MISCELLANEOUS.

Statement No. 3.

List of Universities and Colleges approved by the Governor-General in Council for the purposes of Rules 32 and 33 under the Indian Mines Act, 1901.

Name of Institution and Degree or Diploma.	Date.
University of Birmingham in respect of its Degree of B.Sc. in Mining and Diploma in Mining.	11th June 1904.
University College of Bristol in respect of its Senior Diploma in Mining.	16th September 1904.
University of Cambridge in respect of its Diploma in Mining Engineering.	6th June 1905.
University of Durham in respect of its Degree of B.Sc. in Mining	21st December 1903.
Durham College of Science in respect of its Diploma in Mining .	29th June 1904.
University of Glasgow in respect of its Degree and Diploma in Mining.	28th September 1904.
Glasgow and West of Scotland Technical College in respect of its Diploma in Mining.	28th June 1904.
University of Leeds in respect of its Degree of B.Sc. in Mining and Diploma in Mining.	21st November 1904.
University of London in respect of its B.Sc. Degree in Mining for Internal Students, subject to the Degree being endorsed by the University with a certificate of four months' practical experience in a mine.	9th June 1905.
University of London in respect of its B.Sc. Degree in Mining for External Students, subject to the Degree being endorsed by the University with a certificate of four months' practical experience in a mine.	7th August 1906.
Royal School of Mines in respect of its Associateship in Mining .	24th March 1904.
University of Oxford in respect of its Diploma B. for Colliery Engineers (in Scientific Engineering and Mining subjects).	11th February 1905.
University College of Sheffield in respect of its Diploma in Mining.	15th July 1904.
University College of South Wales and Monmouthshire in respect of its Diploma in Mining.	19th April 1904.
Wigan Mining and Technical College in respect of its Diploma in Mining.	26th August 1904.
Civil Engineering College, Sibpur, in respect of its Diploma in Mining.	22nd February 1907.
Merchant Venturers' Technical College, Bristol, in respect of its Diploma in Mining Engineering.	5th October 1905.
Victoria University of Manchester in respect of its Degree and Certificate of Mining.	14th February 1906.
University College of Nottingham in respect of its Diploma in Mining Engineering.	23rd March 1906.
University of Sheffield in respect of its Degree of Bachelor of Engineering (Mining).	30th June 1906.
Heriot-Watt College in respect of its Certificate in Mining Engineering.	16th January 1908.
Calcutta University in respect of its Degree of Bachelor of Engineering in the branch of Mining Engineering.	24th September 1910.
Harvard University, Cambridge, Massachusetts, in respect of its Diploma in Mining Engineering.	22nd February 1913.
Columbia University, New York, in respect of its Degree of Engineer of Mines.	13th March 1915

APPENDIX IV—contd.

MISCELLANEOUS.

Statement No. 4.

SIBPUR COLLEGE.

THE MINING CLASSES.

CIRCULAR.

(All students must be resident.)

A course for the Diploma in the "Principles of Mining" is offered.

Arrangement of Classes.

First year.—Admissions about the end of January to the preliminary year, in which Mechanical, Electrical and Mining students are taught together.

Second year.—Promotion in April to the Junior Mining Class. Civil Engineering students who pass the Sub-Overseer examination are also admitted at this stage.

Third year.—Promotion in April to the Senior Mining Class. The examination for the Diploma in Mining is held at the end of this year.

(The possession of a certificate gives the holder no claim to any appointment under Government.)

The Mining Course.—This course covers three years (all at the College), preparing students for the examination for the Government Diploma in the "Principles of Mining." The first or preliminary year is common to the course in Mechanical and Electrical Engineering. Specialized instruction in Mining is offered only in the last two years. Students spend six weeks each year in learning practical Mine Surveying and in visiting collieries.

The courses of instruction are designed to afford theoretical training in the Principles of Mining generally, to prepare students for positions of responsibility in coal or metal mines, and in the case of students attending for instruction in coal-mining, to qualify them to appear at the examinations for mine managers as required by the Indian Mines Act. Students who obtain the College Diploma may be granted a reduction by two years in the qualifying period of practical work in a coal mine required of candidates for a colliery manager's certificate.

Admission to the Mechanical and Electrical Engineering and Mining Courses.—Admission to the first or preliminary year of the Mechanical and Electrical Engineering and Mining Courses is made at the end of January. Candidates must be qualified, as laid down above, for admission to the first year of the Sub-Overseer classes (B. Final certificate-holders are admitted only to the first or preliminary year of the Mechanical and Electrical and Mining Courses).

Applications must be received at the Principal's office by the 16th January.

Admission to advanced standing.—Students who have passed the Sub-Overseer examination may be admitted in April to the junior year of the Mining or the Mechanical and Electrical Engineering Courses, thus qualifying for admission to the final examination in those branches on the expiry of two years.

Age.—No limits of age are laid down for admission to the Mining and Mechanical and Electrical Engineering Courses.

Admission of special students to the Mining classes.—Provided there is room, persons who have completed at least two years' practical work upon a mine may be admitted direct to the junior year of the Mining Course as special students, irrespective of age, provided that their general education is such as to enable them to follow the course with profit. They must apply for admission before 1st March, producing statements from the managers under whom they have served, showing the nature of their employment and period.

Two places in the Mechanical and Electrical Engineering and two places in the Mining Courses are reserved for students from Bihar and Orissa.

The total number of admissions to the above courses in Civil and Mechanical and Electrical Engineering and Mining is limited to 60; preference is given to admissions to the junior years of the Upper Subordinate, the Mechanical and Electrical Engineering and Mining Courses and to the second year of the Sub-Overseer Courses. The number admitted to the Civil and Mechanical and Electrical and Mining Branches is regulated by the Principal, so that the total number in any combined class does not exceed 60, nor in any special branch shall it exceed 40.

In determining the age of candidates for admission, for Indian students the statement recorded in the school registers on their first joining any school is the only evidence of their age accepted. European students must produce their baptismal certificates.

APPENDIX IV—*contd.*

MISCELLANEOUS.

Statement No. 4—*contd.*

MEDICAL EXAMINATION.

Every applicant must before admission present himself before the Medical Officer resident at the College for examination as to his eyesight, physical strength and fitness for manual labour. In the case of those resident at a distance, a Civil Surgeon's certificate will be accepted. Candidates not protected by vaccination must be vaccinated before admission.

COMMENCEMENT OF SESSION.

The second-year Sub-Overseer and the junior-year sessions of all courses commence in April as soon as possible after the B. Final or Sub-Overseer examination results are announced.

The first-year session commences on the first Monday in May.

Any student unable to join the College on the date mentioned in his admission letter must send by that date Rs. 9 of the first instalment of fees in order to secure his seat; failing this, another student will be admitted in his place. He must also bring with him, when he joins, a medical certificate from a Civil or Assistant Surgeon testifying his inability to join on the proper date, failing which he will be liable to a fine of Rs. 10.

VACATION.

The College will be closed for the long vacation from about the middle of August to the first Monday in November. No student may remain at the College during this period, except such as may be detained on duty by the Principal.

Residential arrangements.

All students must be resident.

There are separate furnished boarding arrangements for Europeans, Muhammadans and Hindus. Messes are maintained for Europeans and Hindus, Muhammadans make their own messing arrangements.

In the case of Muhammadans, on account of the greater cost of living at the College owing to the small number of Muhammadan students, Government maintain a cook and one other servant, and pay a stipend to each Muhammadan student varying from Rs. 6 to Rs. 1 a month according as there may be one or sixteen resident Muhammadans.

COLLEGE DUES.

Initial—

	Rs.	
Entrance fee, mess	2	} Non-returnable. Balance returnable if applied for within three years after paying College dues.
Entrance fee, athletic club	1	
Caution-money deposit	5	

Monthly—

Tuition	3	Payable for each month of the year.
Electric light	1	Payable for ten months of the year.
Board (session) 9½ months	...	Europeans, Rs. 25; Hindus, Rs. 11.
" (vacation) 2½ "	...	Europeans, Rs. 2; Hindus, Rs. 1.
Athletic club	1	in March, June and November.

Free studentships.—A total number of five free studentships for all branches in the Apprentice Department are available for European students.

Reduced feeships.—A total number of 25 reduced feeships for all branches of the Apprentice Department are available for Europeans. These reduce the fees to Rs. 5 for messing payable for 12 months in addition to the electric light and athletic club fees.

A total number of 40 reduced feeships are available for Indians. These reduce the fees to Rs. 2 for messing payable for twelve months in addition to the electric light and athletic club fees.

NOTE.—Free and reduced feeships apply only to students whose parents or guardians reside within the limits of the jurisdiction of the Governor of Bengal, but the sons of employés of the East Indian Railway, Bengal-Nagpur Railway or Eastern Bengal State Railway, of soldiers serving in India, of Survey, Telegraph and other Government officers who are liable to employment in Bengal, or pensioners who, when on active service, were liable to be so employed, are eligible for election.

Forms of application for the reduced feeships are available in the Principal's office.

These free and reduced feeships are awarded by the Board of Visitors after the commencement of the session from among students who have joined.

APPENDIX IV—*contd.*
MISCELLANEOUS.

Statement No. 4—*contd.*

SCHOLARSHIPS AND STIPENDS.

TENABLE IN JUNIOR AND SENIOR YEARS OF MINING COURSE FOR REGULAR STUDENTS
RESIDENT IN BENGAL.

Rs.

Two scholarships of	12	} Carrying exemption from tuition fee unless the holder is also on the Reduced Fee List.
Three " "	6	

FOR SPECIAL STUDENTS.

Europeans. Two Scholarships of	50	} Awarded on the result of the sessional examination of students attending evening classes in mining-instruction in the coalfield.
Indians " " " "	25	

SYLLABUS OF MINING COURSES.

COURSE I.

Geology applied to mining.—(One lecture per week.)

Classification of rocks: characteristic fossils and economic products of the principal systems.

Structure of rock; foldings, faults, cleavage, formation of mineral veins.

Principles of geological surveying: methods employed in constructing geological maps and sections. Special reference to the geology of India.

Mining Engineering.—(Two lectures per week.)

Boring by hand and power machines.

Sinking and lining shafts; various methods employed in special cases.

Systems of haulage, underground and aboveground, aerial ropeways.

Hoisting, head-gear, ropes, safety appliances.

Mining legislation.

Section A.—(One lecture per week.)

Methods of working coal, shafts, pillars, preliminary work, and various methods of working the seams. Special reference to thick coal working as practised in England and different parts of the world.

Shot-firing; coal-cutting by machinery.

Surface subsidence and under-sea working.

Timbering and other supports.

Coal mine plans and sections, connecting surface and underground surveys.

Section B.—(One lecture per week.)

Prospecting for and methods of working mineral veins.

Alluvial mining and open workings.

Hydraulic mining; dredging for gold; ore-beds and deep leads, overhand and underhand stopping.

Hand and power drilling; blasting, timbering.

Metal mine plans.

COURSE II.

Descriptive Mineralogy.—(One lecture per week.)

Physical properties of minerals; description of various ores and fuels; methods of determination.

Prospecting operations.

Mining Engineering.—(Two lectures per week during first-half of session.)

Drainage of mines; adits, levels; pumping machinery; dams; boring against old workings.

APPENDIX IV—*contd.*

MISCELLANEOUS.

Statement No. 4—*contd.*

Ventilation of mines; natural and artificial ventilation; splitting and regulating air currents; types of fans; water-gauge and anemometer.
Power-application in a mine; discussion of relative merits of steam, water, compressed air, electricity and oil, as sources of applied power.

Section A.—(One lecture per week).

Description of gases found in coal mines; colliery explosions; safety lamps; instruments for detecting fire-damp; treatment of men overcome by foul air.

Arrangement of surface works at a colliery; sorting and screening coals; coal-washing, briquette making, coking and bye-products.

Section B.—(One lecture per week).

Surface works of metal mines, sorting, crushing, sizing and concentration of various ores. Modern ore-dressing machinery and slime tables.

Special reference to treatment of gold, silver, copper, and zinc.

Cyanide and Chlorine treatment of slimes.

Statement No. 5.

MINING INSTRUCTION IN BENGAL AND BIHAR AND ORISSA.

[*The Mining Educational Advisory Board desire that Colliery Managers will kindly publish this information in their collieries. An appeal is also made to them to support the lectures by seeing that members of their colliery staff, who are suitable, take advantage of the lectures and attend them regularly.*]

RANIGANJ AND JHARIA COALFIELDS.

Lectures will be delivered throughout the session at the following centres:—

<i>Place and days.</i>	<i>Lecturer and Secretary.</i>
(1) Lecture-room near Sijua station, on Tuesdays.	} Mr. H. C. Read.
(2) Lecture-room near the Jharia Club, on Mondays.	
(3) Lecture-room at Messrs. Apar and Company's Charanpur Colliery, on Fridays.	
(4) Lecture-room near Dishargarh Club, on Wednesdays.	
(5) Railway Institute, Raniganj, on Thursdays.	

The course of instruction, consisting of not less than 80 lectures, will commence the first week in September and end in the following April. An examination will be held in April 1916, and candidates who pass the examination will receive a certificate recording their success. No candidate will, however, be permitted to sit for the examination unless he has attended 50 per cent. of the lectures and received 40 per cent. of the marks allotted for home work.

All Europeans and English-speaking Indians are cordially invited to attend.

The following Sub-Committees have been appointed for each centre:—

RANIGANJ DISTRICT.

<i>Dishargarh Centre.</i>	<i>Charanpur Centre.</i>	<i>Raniganj Centre.</i>
Mr. G. C. Leach, <i>Chairman.</i>	Mr. G. C. Leach, <i>Chairman.</i>	Mr. G. C. Leach, <i>Chairman.</i>
" Glen George.	" T. Samson.	" P. S. Keelan.
" Geo. Miller.	" B. Mitchell.	" J. Mackintosh.
" F. Owen.	" E. M. Patterson.	" W. J. Rees.
Babu M. N. Roy (Begunia).	" A. Russell.	Babu Promotho Nath Hazra.
" P. C. Tarafdar.	Babu Rajani Prokash	" Bejoy Krishna Banerji.
" Hari Pada Mukherji.	" Chakravarti.	
	" Atul Shashi Mitra.	

APPENDIX IV—contd.

MISCELLANEOUS.

Statement No. 5—contd.

JHARIA DISTRICT.

<i>Jharia Centre.</i>	<i>Sijua Centre.</i>
Mr. R. R. Simpson, <i>Chairman.</i>	Mr. R. R. Simpson, <i>Chairman.</i>
„ R. G. M. Bathgate.	„ A. A. Agabeg.
„ J. S. Kean.	„ E. S. Bennertz.
„ A. S. Thomson.	„ B. Starksfield.
Babu Sita Nath Dutta.	Babu Purshotan Bhimji Relia.
„ Gobhurdhan Dass Manishankar.	

SYLLABUS OF THE COURSE OF INSTRUCTION.

The course will treat principally of the more practical operations in actual mining, with special reference to India, and the principles underlying such operations will be thoroughly discussed. Special attention will be paid to the various methods of working thick seams. Sketches illustrating the lectures will be distributed free of charge.

At the close of each lecture questions will be set for home work.

FIRST-YEAR COURSE.

1. *Geology.*—General structure of the crust of the earth; descriptions of fault, dykes, outcrop, dip, strike, unconformity, etc.; composition and properties of coal; special reference to the coal measures in India; importance of recording results of observations.

2. *Exploration.*—Advantages of borings; driving through faults, washouts, dykes, methods of maintaining the direction and gradient of such drivages.

3. *Boring and winning.*—Different systems of borings; choice of methods; cost of boring; winning coal by inclines, adits, shafts and cross-cut.

4. *Sinking.*—Site of colliery; position of shafts, excavation and shape; blasting with use of safety fuse and electric battery; explosives and detonators, their safe storing and handling; sinking and how to deal with difficulties: apparatus and tools used; lining shafts and scaffolding; pitbanking arrangements.

5. *Opening out and methods of working, surveying.*—Shafts; pillars; arching or supporting the pit bottom; quarrying; pillar and stall; double road stall; long wall; panel systems.

6. *Timbering and supporting.*—Fixing of props and double timber, chocks or cogs; special methods of timbering to withstand pressure from the roof sides and floor; securing dangerous holes in the roof due to heavy falls; use of iron or steel girders; stowing and packing; arching.

7. *Gases met with in coal mines.*—Their experimental preparation by chemicals, and illustration of their physical and physiological properties; methods of detecting; explosion and gob fires.

8. *Ventilation.*—Natural and artificial methods; coursing the air; use of stoppings, brattices, doors, air bridges, regulators; measuring the quantity of air, use of thermometer, barometer; water-gauge, anemometer; the friction of air in mines and the elementary theory of splitting.

9. *Safety lamps.*—Theory of safety lamps, Sir Humphrey Davy's experiment; the Davy lamp, the Clanny and Thomas and Williams lamps, the Marsuat and Mueseler lamps, fire-damp detectors.

SECOND-YEAR COURSE.

1. *Mechanical Engineering of collieries.*—Winding engines, discussion of the different types, calculation of the dimensions of cylinders, length of stroke, diameter of drum, etc.; strength of winding ropes and chains, detaching hooks, capping winding ropes, care and examination of ropes.

2. *Pumping.*—Importance of a good system; measurement of quantities of water; lifting and forcing pumps; pumps for sinking; temporary and permanent pumps; calculation of dimensions of pumps to perform a given duty, strength of pipes, methods of supporting; different types of joints.

APPENDIX IV—*contd.*

MISCELLANEOUS.

Statement No. 5—*contd.*

3. *Hauling*.—Tramways, tubs and waggons; conveyance by self-acting inclines; single-rope haulage; main and tail; endless rope; endless chain; calculation concerning inclines, sizes of haulage engines, ropes, etc.; signalling; capping of haulage ropes.

4. *Methods of working and ventilation*.—Revision of first-year course work, followed by a fuller treatment of these subjects.

5. *Surface arrangements*.—Boilers; Cornish, Lancashire, and water-tube types; boiler fittings, injectors, and steam-pipes, etc.; boiler explosions, incrustation, corrosion and priming; calculations of boilers. Heapsteads; arrangement of roads around pit bank; simple screening and sizing.

6. *Transmission of power*.—By steam, compressed air and electricity, discussing the relative merits of each system.

Text-books recommended.—Peel's or Kerr's Elementary Mining; O'Donoghue's Mining Arithmetic.

W. H. EVERETT,

(*Officiating Superintendent of Industries, etc.*),
Secretary to the Mining Educational Advisory Board,
Writers' Buildings, Calcutta.

WRITERS' BUILDINGS,
Calcutta, the 19th August 1915.

Statement No. 6.

No. 15874—82.

DEPARTMENT OF COMMERCE AND INDUSTRY.

NOTIFICATION.

GEOLOGY AND MINERALS.

Simla, the 16th October 1916.

In exercise of the power conferred by Section 20 of the Indian Mines Act, 1901 (VIII of 1901), the Governor-General in Council is pleased to direct that in the rules regarding certificates of mine managers issued with Notification No. 2968—82 (Geology and Minerals), dated the 21st April 1906, the following amendments shall be made, namely:—

The words "One of these persons shall be the owner or manager of the mine, the other shall be a mining engineer" in Rule 28 shall be cancelled.

S. H. SLATER,

for Secretary to the Government of India.

No. 15875—82.

A copy is forwarded to all Local Governments and Administrations, except the Chief Commissioner of Delhi.

A copy is also forwarded to the Railway Department, the Director, Geological Survey of India, the Chief Inspector of Mines in India, and the Secretary, Indian Mining Association.

By order, etc.,

E. P. JONES,

for Under-Secretary to the Government of India.

APPENDIX IV—*conold.*

MISCELLANEOUS.

Statement No. 7.

LAND ACQUISITION (MINES) ACT, 1885.

Particulars required to be furnished by colliery owners to Local Governments when giving notice under Section IV of the Land Acquisition (Mines) Act, 1885, of their intention to work coal under land acquired for a railway:—

- (a) The name, residence and profession of the person giving the notice.
- (b) The name of the mine, together with that of the village and district in which the mine is situate.
- (c) The name of the railway line or of the siding and the main line to which the siding is attached, under which the mine is situate.
- (d) The names of the railway stations and the mileage between which the said siding or the said portion of the railway land, under which the mine is situate, falls.
- (e) The number and date of the declaration under which the land was acquired.
- (f) A tracing, showing the boundaries of, and the area over which, the acquired land extends.