

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**

**1914**

**BY**

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



**CALCUTTA**  
**SUPERINTENDENT GOVERNMENT PRINTING, INDIA**  
**1915**

# CONTENTS.

	Page.
<b>INTRODUCTION—</b>	
Relates to administration of the Act . . . . .	1
Other mining statistical publications . . . . .	1
Scheme of report . . . . .	1
<b>SECTION I.—PERSONS EMPLOYED—</b>	
Average figures of labour . . . . .	1
Increase compared with preceding year . . . . .	1
" chiefly in coal-fields of Bihar . . . . .	1
Labour supply in Bengal almost stationary . . . . .	1
" shortage of, except at end of year . . . . .	2
" " at collieries in the Central Provinces . . . . .	2
" at Assam collieries comprise Makranias, Chinese and Nepalese . . . . .	2
" improvement of condition of, in Assam collieries . . . . .	2
<b>SECTION II.—OUTPUT OF MINERAL—</b>	
Coal output, increase on previous year . . . . .	2
" " smallest annual increase since 1910 . . . . .	2
" " curtailed by effects of floods of 1913 and war . . . . .	2
" market for best Bihar and Bengal coal remained firm . . . . .	2
" several smaller concerns were shut down . . . . .	2
" great portion carried by rail . . . . .	2
" output increases in Bihar and Bengal . . . . .	2
" decrease in Baluchistan . . . . .	2
" increases in the Panjab, Assam, the Central Provinces and North-West Frontier Province . . . . .	2
" per person . . . . .	2
" mines in Bihar and Bengal, advance in electricity . . . . .	2
Mica output, decrease . . . . .	3
" compared with previous year . . . . .	3
" condition of trade . . . . .	3
" large proportion of demand from Germany . . . . .	3
" export of, to Europe practically out off . . . . .	3
" closing of mines in Nellore . . . . .	3
" demand for slab, kept prices fairly firm . . . . .	3
" price of splittings was much reduced . . . . .	3
Manganese output, decrease in . . . . .	3
" compared with preceding year . . . . .	3
" price per unit . . . . .	3
" export to America prohibited during war . . . . .	3
" Continental markets closed . . . . .	3
Gems output increase in . . . . .	3
" Sapphires increase in output . . . . .	3
" Rubies decrease . . . . .	3
" European markets collapsed . . . . .	3
" Indian and Burman markets fairly good . . . . .	3
Gold output, increase in . . . . .	3
" producing stage reached in a second mine in Anantapur . . . . .	3
Copper output increase in . . . . .	3
Wolfram output, increase in . . . . .	3
Bauxite output reported from Jabalpur . . . . .	4
Pitchblende output for first time from Gaya . . . . .	4
Triplite . . . . .	4
Granite output of from Amherst . . . . .	4
Iron output, increases in . . . . .	4
Slate . . . . .	4
Clay . . . . .	4
Fuller's earth output increases in . . . . .	4
Limestone . . . . .	4
Galena . . . . .	4
Samarakite . . . . .	4
Salt output, decreases in . . . . .	4
Chromite output decreases in . . . . .	4
Corundum . . . . .	4

	PAGE.
<b>SECTION II.—OUTPUT OF MINERAL—<i>contd.</i></b>	
Magnesite output decreases in . . . . .	4
Tin " " " " . . . . .	4
Steatite " " " " . . . . .	4
<b>SECTION III.—ACCIDENTS—</b>	
Accidents, increase in . . . . .	4
" " compared with previous years . . . . .	4
Deaths, decrease in . . . . .	4
" " compared with previous year . . . . .	4
" classified . . . . .	4
Special rule regarding pillar robbing . . . . .	4
Proceedings against any one breaking special rules . . . . .	4
Supervision at night should not be relaxed . . . . .	5
Falls of roof and sides due to neglect to recognize slips, cleats and faults . . . . .	5
Deaths, increase in, from falls of roof and sides . . . . .	5
" by haulage . . . . .	5
Causes of haulage accidents in Indian mines . . . . .	5
Checking of haulage accidents . . . . .	5
Death-rates per a thousand persons employed . . . . .	5
" " million tons raised . . . . .	5
Deaths in each mineral worked . . . . .	5
" in males and females . . . . .	5
" in Bengal and Bihar coal mines . . . . .	5
Explosions of fire-damp—	
Accident at Assam Railways and Trading Co.'s Ledo coal mine . . . . .	5
Falls of roof and sides—	
Accident at the Bengal Coal Co.'s Dhobidih coal mine . . . . .	6
In shafts—	
Accident at the Cape Copper Co.'s Bakha Hills mine . . . . .	7
" " Upper India Coal Co.'s North Singaran coal mine . . . . .	7
" " Barakar Coal Co.'s Loyabad coal mine . . . . .	8
" " Bhalgora Coal Co.'s Simlabahal coal mine . . . . .	8
Interruptions of water or falling into water—	
Accident at Johar and Sunder Mull's Tadaiya mica mine . . . . .	9
Haulage—	
Accident at the Equitable Coal Co.'s Dishargah coal mine . . . . .	9
" " Lakorka Coal Co.'s Lakorka coal mine . . . . .	10
" " Pátel & Co.'s Kusunda coal mine . . . . .	10
Sundries underground—	
Accident at the Bengal Coal Co.'s Sodepur coal mine . . . . .	11
Non-Statistical—	
Accident at the Bengal Coal Co.'s Marulidih coal mine . . . . .	12
<b>SECTION IV.—PROSECUTIONS AND ADDITIONS TO THE ACT—</b>	
Prosecutions under Indian Mines Act—	
The Indian Collieries Syndicate's Jamadoba coal mine . . . . .	12
" Bengal Bhatdih Coal Co.'s Bhatdih coal mine . . . . .	12
" Equitable Coal Co.'s Chowrasi " " . . . . .	12
Shoodan Mull Ram Chandra Marwari's Dhasar coal mine . . . . .	12
The Netra Manganese Co.'s Netra manganese mine . . . . .	12
Jessop & Co.'s Gowangota manganese mine . . . . .	12
" " Bhandabori manganese mine . . . . .	12
The Netra Manganese Co.'s Malburki manganese mine . . . . .	13
" Upper India Coal Co.'s North Singaran coal mine . . . . .	13
" New Baraboni Coal Co.'s New Baraboni " " . . . . .	18
Bihaskuari's Lariatand mica mine . . . . .	13
The Sudamdih Coal Co.'s Sudamdih coal mine . . . . .	13
" Barakar Coal Co.'s Loyabad coal mine . . . . .	14
" New Birbhum Coal Co.'s Borrea coal mine . . . . .	14
" North Jharra Coal Syndicate's Dhansar coal mine . . . . .	15
J. Boisogomoff & Co.'s Radhaballavpur coal mine . . . . .	15
Rani Shama Sundari Devi's Searool coal mine . . . . .	15
The Majhlitand Coal Co.'s Majhlitand coal mine . . . . .	15
C. C. Mitra's Bandih coal mine . . . . .	15
Chatra Naik's Sakua mica mine . . . . .	15
Bundhu Singh's Sabarabis mica mine . . . . .	15
R. N. Bagchi and Bros.' Dobari coal mine . . . . .	15
The Royal Bengal Coal Co.'s Kusumkanali coal mine . . . . .	15
" Shergarh Coal Co.'s Burman Baraboni coal mine . . . . .	15 & 16

	PAGE.
<b>SECTION IV.—PROSECUTIONS AND ADDITIONS TO THE ACT—(contd.)</b>	
<b>Prosecutions under Indian Mines Act—(contd.)</b>	
The Central Tentulia Coal Co.'s Central Tentulia coal mine . . . . .	16
" Panjab-Bengal Coal Co.'s Barora coal mine . . . . .	17
Jai Prokash Narayan Singh's Tikopara mica mine . . . . .	17
Mithu Sonar's Nayasarai coal mine . . . . .	17
The Joogidih Coal Co.'s Joogidih coal mine . . . . .	17
Tikait Sahib of Gawan's Sallsaya mica mine . . . . .	17
D. C. Biswas and Co.'s Paira mica mine . . . . .	17
H. Ahmed Bros.' Mursaidih coal mine . . . . .	17
Boy, Dutt and Co.'s Kajora " " . . . . .	17
The Barakar Coal Co.'s Kantapahari coal mine . . . . .	17
<b>Prosecutions under the Indian Penal Code—</b>	
The Barakar Coal Co.'s Loyabad coal mine . . . . .	17
" Equitable Coal Co.'s Hariladih coal mine . . . . .	17
<b>SECTION V.—GENERAL REMARKS—</b>	
<b>Health and Sanitation</b>	
No serious outbreak of cholera in Bihar and Orissa coalfields . . . . .	18
Cholera in Jharla and Raniganj coalfields . . . . .	18
Small-pox in Jharla Bazaar . . . . .	18
Cholera at a manganese mine in Nagpur district . . . . .	18
" " the Katni limestone mines . . . . .	18
Small-pox at Mohpani and Chandametta coal mines . . . . .	18
" " manganese mines in Balaghat and Nagpur districts . . . . .	18
Epidemic pneumonia at manganese mines in Bhandara district . . . . .	18
" " " Shivrajpur manganese mines . . . . .	18
Jharla Sanitation Committee . . . . .	18
Number of Meetings held during 1914 . . . . .	18
Dissolved . . . . .	18
Board of Health . . . . .	18
Formed under Bengal Mining Settlements Act, 1912 . . . . .	18
Extent of Settlement . . . . .	18
Constitution of Board . . . . .	18
Rainfall at the Jharla, Raniganj and Giridih coalfields . . . . .	18
<b>SIDPUR COLLEGE MINING DEPARTMENT—</b>	
State at commencement of sessions . . . . .	18
Opening of a special three-years course . . . . .	19
Students at coal mine manager's examination . . . . .	19
Opening of a special class for mine manager's certificates . . . . .	19
Admission of special students to study mine surveying at the College camp . . . . .	19
Students analyzing coal, etc., for several firms . . . . .	19
Mr. Robertson, Professor of Mining, granted furlough . . . . .	19
Mr. H. C. Read officiated . . . . .	19
<b>MINING EDUCATION IN THE BENGAL AND BIHAR COALFIELDS—</b>	
Number of meetings held by Mining Educational Advisory Board . . . . .	19
Lecturers during 1914-15 . . . . .	19
Number of students on register . . . . .	20
Result of sessional examination . . . . .	20
Lectures delivered in Bengali . . . . .	20
<b>MINING AND GEOLOGICAL INSTITUTE OF INDIA—</b>	
Total membership . . . . .	20
Number of meetings held . . . . .	20
Award of Government prize for best paper . . . . .	20
" " three other prizes . . . . .	20
<b>ASSOCIATION OF COLLIERY MANAGERS IN INDIA—</b>	
Formation of . . . . .	20
Constitution of officers . . . . .	20
Total membership . . . . .	20
Objects of the Association . . . . .	20
First President . . . . .	20
<b>BOARD OF EXAMINERS FOR COAL MINE MANAGERS' CERTIFICATES—</b>	
No change in membership . . . . .	21
Expiry of Mr. Browne's term of office and re-election . . . . .	21
Number of meetings held . . . . .	21
Result of examination of 1914 . . . . .	21
Certificates granted . . . . .	21
Examiners . . . . .	21

	PAGE
<b>MINING BOARDS IN BENGAL AND BIHAR—</b>	
Bengal Mining Board—	
Number of meetings held . . . . .	21
Rules for close supervision over colliery magazines . . . . .	21
Constitution of a Mines Board of Health for Asansol Sub-Division . . . . .	21
Non-official members of the Board . . . . .	21
Bihar and Orissa Mining Board—	
Draft rules under Jharia Water-Supply Act . . . . .	21
Revision of Annual Return forms under Indian Mines Act . . . . .	21
OFFICIAL DUTIES . . . . .	21
<b>APPENDIX I.—STATISTICS OF MINES AND MINERALS—</b>	
Table No. 1.—Number of mines and workers and output of minerals . . . . .	23
" " 2.—Number of mines opened and closed . . . . .	36
" " 3.—Fluctuations of outputs . . . . .	39
" " 4.—Coal raised and death-rates . . . . .	39
" " 5.—Coal raised per person employed in various countries . . . . .	40
<b>APPENDIX II.—ACCIDENTS IN MINES—</b>	
Table No. 1.—List of fatal accidents . . . . .	41
" " 2.—Fatal and serious accidents . . . . .	64
" " 3.—Fatal accidents and deaths classified according to age and sex . . . . .	68
" " 4.—Fatal accidents classified according to cause . . . . .	69
<b>APPENDIX III.—PROSECUTIONS UNDER THE MINES ACT . . . . .</b>	
	70
<b>APPENDIX IV.—MISCELLANEOUS—</b>	
Statement No. 1.—List of inspection circles . . . . .	73
" " 2.—List of certificate holders . . . . .	72
" " 3.—List of mining universities . . . . .	74
" " 4.—Sibpur mining classes . . . . .	75
" " 5.—Mining instruction in Bengal and Bihar and Orissa . . . . .	78
" " 6.—Cancellation of rules 36, 37 and part of 38 issued with Notification No. 2968—82, dated 21st April 1906 . . . . .	80
" " 7.—Particulars to be furnished under Section 4, Land Acquisition (Mines) Act, 1885 . . . . .	81

**APPENDIX I**  
**STATISTICS OF MINES AND MINERALS.**

Table No. 1.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1914.

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 13).	Total below ground.	Adult males.	Adult females.	Children (under 13).	Total above ground.		
<b>A.—COAL.</b>																	
Bihar and Orissa.	Hazaribagh {	Bokaro-Rangarh	10	...	10	...	...	Tons. 7,900	57	69	9	135	28	48	4	75	210
		Giridih	9	5	4	8	22	825,026	3,741	1,480	...	5,221	1,980	1,300	78	3,358	3,579
	Manbhum {	Jharia	6	...	6	3	3	21,646	141	91	4	236	80	40	11	140	376
		Jharia	263	147	116	221	431	9,125,007	26,461	19,957	837	46,755	17,746	8,610	1,376	27,741	74,496
	Sonthal Parganas. {	Raniganj	83	9	74	36	50	519,371	2,315	1,179	6	3,500	1,151	630	51	1,832	5,332
		Raniganj	2	...	2	2	2	2,384	16	7	...	23	3	4	...	7	30
	Sambalpur, Hingir-Bampur	Rajmahal	2	...	2	2	5	7,150	50	24	...	74	42	17	2	61	135
		Palamau, Daltonganj	1	1	...	2	2	81,680	279	173	68	510	223	48	27	298	808
			1	1	...	...	...	60,883	329	138	...	467	201	40	4	248	715
	TOTAL	377	163	214	274	515	10,651,047	33,389	23,118	414	56,921	21,457	10,760	1,553	33,730	90,681	
Bengal.	Bankura, Raniganj	Bankura, Raniganj	2	...	2	1	1	5,702	48	22	...	65	8	8	...	16	81
		Birbhum "	1	...	1	...	...	2,023	13	8	...	21	10	2	...	12	33
		Burdwan "	175	146	20	136	311	4,416,815	17,058	8,406	159	25,623	8,070	4,738	334	13,142	38,765
	TOTAL	178	146	32	137	312	4,424,540	17,114	8,436	159	25,709	8,088	4,746	334	13,170	38,879	

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 1914—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.		
Central Provinces	Ohhindwara, Pench Valley Narsinghpur, Mohpani Chanda, Ballarpur Yeotmal	7	5	2	3	4	95,670	587	280	22	889	246	76	29	351	1,240	
		1	1	...	...	...	...	50,774	594	208	...	802	412	50	...	462	1,264
		2	2	...	...	2	4	89,292	530	...	...	530	172	5	1	178	708
		1	...	1	...	...	...	...	8	...	...	8	30	4	...	34	42
		TOTAL	11	8	3	5	8	244,745	1,719	488	22	2,229	360	135	30	1,025	3,254
Punjab	Jhelum Shahpur Mianwali	6	...	6	...	...	45,867	629	...	5	634	253	...	14	207	901	
		2	...	2	...	...	6,879	46	...	...	46	55	...	...	55	101	
		2	...	2	...	...	1,557	88	...	5	93	56	6	4	66	159	
		TOTAL	10	...	10	...	...	54,303	763	...	10	773	364	6	18	388	1,161
Assam	Lakhimpur Naga Hills	7	4	3	7	10	303,890	1,619	250	...	1,869	544	220	45	809	2,678	
		1	...	1	...	...	778	37	...	...	37	129	24	...	153	190	
		TOTAL	8	4	4	7	10	304,668	1,656	250	...	1,906	673	244	45	962	2,868

Baluchistan	Kalat . . . . .	4	...	4	...	...	3,161	40	...	...	49	13	..	...	13	68	
	Quetta-Pishin . . . . .	9	...	9	...	...	6,206	78	...	...	78	89	...	...	89	117	
	Sibi-Khost . . . . .	11	5	6	...	...	39,557	507	...	...	507	266	...	19	285	702	
	Loralai . . . . .	1	...	1	...	...	310	20	...	...	20	10	...	...	10	30	
	TOTAL	25	5	20	...	...	48,234	654	...	...	654	328	...	19	347	1,001	
North-West Frontier Province.	Hazara . . . . .	1	...	1	...	...	94	7	...	...	7	...	...	...	...	7	
	GRAND TOTAL (COAL) FOR 1914.	610	326	284	423	845	15,727,631	55,302	32,292	605	88,198	31,770	15,883	1,999	49,652	137,651	
	" " OF PRE- CEDING YEAR.	602	314	288	234	432	15,486,318	52,687	31,657	484	84,828	30,647	15,586	1,981	48,214	133,042	
	DIFFERENCE	+8	+12	-4	+189	+413	+241,313	+2,615	+635	+121	+3,371	+1,123	+297	+18	+1,438	+4,609	
							B.—MICA.										
Bihar and Orissa							Cwts.										
	Monghyr . . . . .	12	...	12	...	...	2,980	211	163	20	394	65	130	24	219	613	
	Hazaribagh . . . . .	452	6	446	34	36	24,116	3,200	1,820	420	5,410	1,414	1,200	702	8,323	8,705	
	Gayn . . . . .	28	...	28	6	6	4,653	624	463	74	1,101	306	333	206	845	2,066	
	TOTAL	492	6	480	40	42	31,149	4,035	2,440	514	6,005	1,785	1,672	932	4,980	11,381	
Madras	Coimbatore . . . . .	1	...	1	...	...	...	...	...	...	...	13	...	...	13	13	
	Nellore . . . . .	77	0	63	49	50	5,556	2,097	1,371	179	9,647	431	471	379	1,281	4,028*	
	Salom . . . . .	4	...	4	...	...	822	70	...	...	70	88	120	41	258	328	
	TOTAL	82	9	78	49	50	5,878	2,167	1,371	179	9,717	532	600	420	1,553	5,260	

\* Including labour figures for Nellore Samarkite.



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 1914—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 13).	Total below ground.	Adult males.	Adult females.	Children (under 13).	Total above ground.	
<b>B.—MICA—contd.</b>																
Rajputana	Ajmer . . . . .	3	...	3	...	...	873	88	20	...	108	51	23	...	74	182
	Merwara . . . . .	5	...	5	4	4	289	86	10	...	96	37	17	...	54	150
	TOTAL	8	...	8	4	4	1,162	174	30	...	204	88	40	...	123	332
GRAND TOTAL (MICA) FOR 1914.		582	15	597	93	96	38,189	6,376	3,847	693	10,916	2,405	2,312	1,352	6,069	16,985
" " OF PRECEDING YEAR.		632	9	623	112	112	43,650	7,089	3,656	681	11,426	2,897	2,553	1,858	7,308	18,734
DIFFERENCE		-50	+6	-56	-19	-16	-5,461	-713	+191	+12	-510	-492	-241	-506	-1,339	-1,749
<b>C.—MANGANESE.</b>																
Central Provinces	Nagpur . . . . .	21	2	19	15	16	153,816	1,233	1,050	10	2,203	522	345	29	896	3,189
	Bhandara . . . . .	9	...	9	8	8	64,773	522	469	41	1,032	395	241	63	699	1,731
	Balaghat . . . . .	16	...	16	4	5	204,105	2,161	1,889	110	4,109	278	182	22	482	4,601
	Chhindwara . . . . .	2	1	1	2	2	87,114	543	515	11	3,069	59	6	1	66	1,135
	Jabalpur . . . . .	1	...	1	...	...	...	6	11	...	-17	8	6	2	11	28
TOTAL	49	3	46	29	31	509,808	4,455	3,884	181	8,520	1,267	780	117	2,154	10,674	
Madras . . . . .	Vizagapatam . . . . .	5	1	4	...	...	20,375	786	554	22	1,362	230	138	31	390	1,761

Bombay	Panch Mahals	2	1	1	2	2	19,488	316	136	37	459	116	14	7	137	626
	GRAND TOTAL (MANGANESE) FOR 1914.	56	5	51	31	33	555,672	5,557	4,574	240	10,371	1,803	932	155	2,690	13,061
	" " OF PRECEDING YEAR.	60	5	55	12	16	637,391	6,433	4,748	177	11,356	1,478	935	191	2,004	13,960
	DIFFERENCE	-4	...	-4	+19	+17	-81,719	-876	-172	+63	-985	+135	-3	-36	+56	-899
					D.—LIMESTONE.											
					Tons.											
Central Provinces	Jabalpur, Katni	25	3	22	26	27	146,955	1,220	1,816	111	3,147	243	354	80	677	3,634*
Panjab	Hoshiarpur	1	...	1	...	...	450	20	...	..	20	40	...	..	40	60
	GRAND TOTAL (LIMESTONE) FOR 1914.	26	3	23	26	27	146,505	1,240	1,816	111	3,167	283	354	80	717	3,694
	" " OF PRECEDING YEAR.	25	3	22	22	25	71,259	678	1,149	55	2,082	255	373	35	663	2,745
	DIFFERENCE	+1	...	+1	+4	+2	+75,246	+362	+667	+56	+1,085	+28	-19	+45	+54	+1,139
					E.—SALT.											
					Tons.											
Panjab	Shahpur	1	...	1	...	...	4,830	16	13	3	92	...	..	...	...	32
	Jhelam	2	...	2	1	2	119,311	413	346	59	818	39	...	...	39	857
	Mianwali	1	...	1	...	...	10,877	59	...	14	73	...	...	...	...	73
	GRAND TOTAL (SALT) FOR 1914.	4	...	4	1	2	135,516	488	359	76	923	39	...	...	39	962
	" " OF PRECEDING YEAR.	4	...	4	1	6	136,540	455	358	70	883	49	...	...	49	932
	DIFFERENCE	...	...	...	...	-4	-3,022	+33	+1	+6	+40	-10	...	...	-10	+30

\* Including labour figures for Jabalpur Fuller's earth.

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 1914—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 12).	Total below ground.	Adult males.	Adult females.	Children (under 12).	Total above ground.			
Burma	Mogok	8	8	...	...	...	F.—GEMS.		857	...	...	857	872	...	...		872	1,720
	Mogok						(a) Rubies.	Carats.								192,503		
	Mogok						(b) Sapphires.	56,709										
	Mogok	(c) Spinels.	54,830															
	TOTAL	8	8	...	...	...	...	804,042	857	...	...	857	872	...	...	872	1,720	
	GRAND TOTAL (GEMS) FOR 1914.	8	8	...	...	...	804,042	857	...	...	857	872	...	...	872	1,720		
	" " OF PRECEDING YEAR.	9	1	8	...	...	278,708	769	...	...	769	1,046	...	...	1,046	1,815		
	DIFFERENCE	-1	+7	-8	...	...	+25,336	+88	...	...	+88	-174	...	...	-174	-85		
Bihar and Orissa	Monghyr	4	...	4	...	...	Tons. 2,600	112	58	58	228	57	..	...	57	260		
	Kangra	5	...	5	...	...	0.04	120	8	2	125	174	41	89	248	373		
Panjab	Gurgaon	5	...	5	...	3	3	103	...	58	251	80	...	7	87	288		
	Gurdaspur	1	...	1	...	...	61	...	...	...	...	...	...	...	...	...		

	TOTAL	11	...	11	3	3	9,830	313	3	60	376	204	41	40	285	661
	GRAND TOTAL (SLATS) FOR 1914.	15	...	15	3	3	12,430	425	58	118	599	261	41	40	342	941
	" " OF PRECEDING YEAR.	15	...	15	...	...	11,470	319	25	58	402	425	75	83	583	985
	DIFFERENCE	...	...	...	+3	+3	+960	+106	+31	+60	+197	-164	-34	-43	-341	-44
	H.—GOLD.															
Madras	Anantapur	3	3	...	...	...	Ozs. 19,873	606	...	...	606	1,013	250	169	1,432	2,038
	GRAND TOTAL (GOLD) FOR 1914.	3	3	...	...	...	19,873	606	...	...	606	1,013	250	169	1,432	2,038
	" " OF PRECEDING YEAR.	3	3	...	3	6	11,019	499	...	...	499	982	211	111	1,284	1,783
	DIFFERENCE	...	...	...	-3	-6	+8,854	+107	...	...	+107	+51	+39	+58	+148	+255
	I.—IRON.															
Bihar and Orissa	Puri	1	1	...	...	...	Tons. 48	6	...	4	10	16	...	7	23	33
	Singhbhum	1	...	1	...	...	151,029	600	240	40	880	53	2	...	55	635
	TOTAL	2	1	1	...	...	151,077	606	240	44	890	69	2	7	78	668
Central Provinces	Jabalpur	1	...	1	...	...	1,126	12	74	12	98	1	2	2	5	103
	Chanda	1	...	1	...	...	15,397	34	32	2	63	27	21	1	49	117
	TOTAL	2	...	2	...	...	16,523	46	106	14	166	28	23	3	54	120
	GRAND TOTAL (IRON) FOR 1914.	4	1	3	...	...	167,600	652	346	58	1,058	97	25	10	132	1,188
	" " OF PRECEDING YEAR.	3	...	3	1	1	98,371	475	232	90	797	173	325	100	598	1,395
	DIFFERENCE	+1	+1	...	-1	-1	+69,229	+177	+114	-32	+259	-76	-300	-90	-466	-207

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 1914—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.	
Burma	Tavey	42	1	41	18	23	31,500	1,791	32	...	1,823	1,008	90	16	1,114	2,937
		Mergui	1	...	1	...	...	26	34	...	...	34	61	...	...	61
	TOTAL	43	1	42	18	22	31,526	1,825	32	...	1,857	1,069	90	16	1,175	3,032
	GRAND TOTAL (WOLFRAM) FOR 1914.	43	1	42	18	22	31,526	1,825	32	...	1,857	1,069	90	16	1,175	3,032
	" " OF PRECEDING YEAR.	35	...	35	18	21	27,520	1,441	24	5	1,470	915	110	36	1,061	2,531
	DIFFERENCE	+8	+1	+7	...	+1	+4,006	+384	+8	-5	+387	+154	-20	-20	+114	+501
Madras	K.—MAGNESITE. Tons.															
	Salem	2	...	2	...	...	399	12	...	21	33	37	...	10	47	80
	TOTAL OF PRECEDING YEAR	4	...	4	1	1	14,036	326	375	249	950	120	...	9	129	1,079
	DIFFERENCE	-2	...	-2	-1	-1	-13,637	-314	-375	-228	-917	-83	...	+1	-32	-999

\* Including labour figures for Mergui Tin.

		L.—CHROMITE.														
		Cwts.														
Baluchistan	Quetta-Fishin . . . . .	1	1	...	...	...	2,960	7	...	...	7	3	...	...	3	10
	Zhob . . . . .	9	...	9	...	...	57,160	32	...	...	32	28	...	...	28	60
GRAND TOTAL (CHROMITE) FOR 1914		10	1	9	...	...	60,120	39	...	...	39	31	...	...	31	70
TOTAL OF PRECEDING YEAR		10	...	10	...	...	68,280	6	...	...	6	64	...	...	64	70
DIFFERENCE . . . . .		...	+1	-1	...	...	-8,160	+33	...	...	+33	-33	...	...	-33	...
		M.—COPPER ORE.														
		Tons.														
Bihar and Orissa	Singhbhum . . . . .	1	1	...	1	5	4,400	402	...	...	402	841	564	60	1,465	1,867
	TOTAL OF PRECEDING YEAR	1	1	...	1	5	3,689	408	...	...	408	580	183	65	807	1,215
DIFFERENCE . . . . .		...	...	...	...	...	+761	-6	...	...	-6	+281	+382	-5	+658	+652
		N.—FULLER'S EARTH.														
		Tons.														
Central Provinces	Jabalpur . . . . .	1	...	1	1	1	109	...	...	...	...	...	...	...	...	...
	TOTAL OF PRECEDING YEAR	1	...	1	...	...	103	...	...	...	...	...	...	...	...	...
DIFFERENCE . . . . .		...	...	...	+1	+1	+6	...	...	...	...	...	...	...	...	...
		O.—CLAY.														
		Tons.														
Bihar and Orissa	Palamau . . . . .	1	...	1	...	...	785	4	6	2	12	6	5	...	11	23
Central Provinces	Jabalpur . . . . .	3	1	2	2	2	26,818	61	118	5	184	42	8	3	53	237
GRAND TOTAL (CLAY) FOR 1914		4	1	3	2	2	27,603	65	124	7	196	48	13	3	64	260
TOTAL OF PRECEDING YEAR		6	1	5	4	4	23,665	133	98	...	231	99	...	...	99	330
DIFFERENCE . . . . .		-2	...	-2	-2	-2	+3,938	-68	+26	+7	-35	-51	+13	+3	-35	-70
		P.—GALENA.														
		Cwts.														
Central Provinces	Drug . . . . .	1	...	1	...	...	65	12	45	...	57	10	25	...	85	92
	TOTAL OF PRECEDING YEAR	1	...	1	...	...	80	7	35	...	42	...	...	...	...	42
DIFFERENCE . . . . .		...	...	...	...	...	+85	+5	+10	...	+15	+10	+25	...	+85	+50

\* Labour figures included with those for Jabalpur Limestone.

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 1914—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.	
Central Provinces	Jabalpur	1	...	1	...	...	9,280	16	12	...	28	5	...	...	5	
	TOTAL OF PRECEDING YEAR	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	DIFFERENCE	+1	...	+1	...	...	+9,280	+16	+12	...	+28	+5	...	...	+5	+33
Bihar and Orissa	Q.—BAUXITE. Cwts.						1	5	...	...	5	10	...	...	10	15
	Hazribagh	1	...	1	...	...										
Burma	Mergui	1	...	1	...	...	140	...	...	...	...	...	...	...	...	...
	Tavoy	4	2	2	1	1	768	...	...	...	...	120	...	...	120	120
	TOTAL	5	2	3	1	1	908	...	...	...	...	120	...	...	120	120
	R.—TIN. Cwts.						909	5	...	...	5	130	...	...	130	135
	GRAND TOTAL (Tin) FOR 1914.	6	2	4	1	1										
	" " OF PRECEDING YEAR.	6	1	5	2	2										
DIFFERENCE	...	+1	-1	-1	-1	-825	+1	...	...	+1	-8	...	...	-8	-7	

\* Labour figures included with those for Mergui Wolfram.

		S.—STEAHITE.														
Central Provinces	Jabalpur	3	...	3	1	1	Cwts. 6,880	43	16	...	59	11	13	9	33	93
Madras	Kurnool	1	...	1	...	...	4,207	24	51	...	75	15	16	...	31	108
GRAND TOTAL (STEAHITE) FOR 1914.		4	...	4	1	1	11,087	67	67	...	134	26	29	9	64	198
" " OF PRECEDING YEAR.		4	...	4	...	...	24,120	117	152	...	269	23	24	...	47	316
DIFFERENCE		...	...	...	+1	+1	-13,033	-50	-85	...	-135	+3	+5	+9	+17	-118
		T.—GRANITE.														
Burma	Amherst	2	2	...	1	1	Tons. 125,348	495	7	...	502	125	9	5	139	641
TOTAL OF PRECEDING YEAR		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DIFFERENCE		+2	+2	...	+1	+1	+125,348	+495	+7	...	+502	+125	+9	+5	+139	+641
		U.—CORUNDUM.														
Madras	Trichinopoly	1	...	1	...	...	Cwts. 478	9	17	...	26	9	14	17	40	66
TOTAL OF PRECEDING YEAR		4	...	4	...	...	1,650	28	39	3	70	21	41	12	74	144
DIFFERENCE		-3	...	-3	...	...	-1,172	-19	-22	-3	-44	-12	-27	+5	-34	-78
		V.—SAMARSKITE.														
Madras	Nellore	1	...	1	...	...	Cwts. 43	...	...	...	...	...	...	...	...	...
TOTAL OF PRECEDING YEAR		1	...	1	...	...	3	...	...	...	...	...	...	...	...	...
DIFFERENCE		...	...	...	...	...	+40	...	...	...	...	...	...	...	...	...

\* Labour figures included with those for Nellore mica.



APPENDIX I—contd.

STATISTICS OF MINES AND MINERALS—contd.

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 1914—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.								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 13).	Total below ground.	Adult males.	Adult females.	Children (under 13).	Total above ground.					
Bihar and Orissa	Gaya . . . . .	1	...	1	...	...	<b>W.—TRIPLITE.</b>								...					
							Cwts.		...	...	...	...	...	...		...	...	...		
							200													
							TOTAL OF PRECEDING YEAR . . . . .												...	...
DIFFERENCE . . . . .		+1	...	+1	...	...	...	...							...				...	...
Bihar and Orissa	Gaya . . . . .	1	...	1	1	1	<b>X.—PITCHBLEND.</b>								98†					
							lbs.		50	44	4	98	...	...		...	...			
							16													
							TOTAL OF PRECEDING YEAR . . . . .											...	...	...
DIFFERENCE . . . . .		+1	...	+1	+1	+1	+16	+50							+44			+4	+98	...

GRAND TOTAL (ALL MINERALS) 1914.	1,387	389	1,018	603	1,040	Tons. 16,903,315 Cwts. 151,897 lbs. 16 Ounces. 19,873 Carats. 304,042	74,500	43,638	1,933	120,071	40,874	30,541	3,925	65,140	185,311
GRAND TOTAL OF PRECEDING YEAR.	1,426	338	1,088	411	631	Tons. 16,484,842 Cwts. 166,987 lbs. ... Ounces. 11,019 Carats. 278,706	72,074	42,546	1,872	116,492	39,872	20,415	4,461	64,768	181,800
DIFFERENCE . . . . .	-39	+81	-70	+192	+409	Tons. +418,373 Cwts. -15,090 lbs. +16 Ounces. +8,854 Carats. +25,336	+2,426	+1,092	+61	+3,579	+802	+126	-556	+372	+3,061

\* Labour figures included with those for Pitchblende,  
 † Labour figures include those for Tripilite.

## APPENDIX I—contd.

Table No. 2.  
Number of mines opened and closed during the year ending 31st  
December 1914.

Province.	District.	Number of mines opened.	Number of mines closed.	
<b>A.—COAL.</b>				
BIHAR AND ORISSA . . . . .	Hazaribagh {	Jharua . . . . .	2	1
		Bokaro-Ramgarh . . . . .	6	7
		Glridih . . . . .	...	2
	Manbhum {	Jharua . . . . .	19	18
		Raniganj . . . . .	11	9
	Sonthal Parganas {	Rajmahal . . . . .	1	...
Raniganj . . . . .	1	...		
TOTAL		40	37	
BENGAL . . . . .	Burdwan-Raniganj . . . . .	12	14	
	Bankura . . . . .	...	1	
TOTAL		12	15	
BALUCHISTAN . . . . .	Sibi-Khost . . . . .	1	2	
	Quetta-Fishin . . . . .	2	1	
	Kalat . . . . .	1	...	
TOTAL		4	3	
CENTRAL PROVINCES . . . . .	Chhindwara . . . . .	1	...	
	Yeotmal . . . . .	1	...	
TOTAL		2	...	
ASSAM . . . . .	Naga Hills . . . . .	1	...	
PANJAB . . . . .	Mianwali . . . . .	2	2	
TOTAL (COAL)		61	57	
<b>B.—MICA.</b>				
BIHAR AND ORISSA . . . . .	Monghyr . . . . .	4	4	
	Hazaribagh . . . . .	138	257	
	Gaya . . . . .	3	5	
TOTAL		145	266	

## APPENDIX I—contd.

Table No. 2—contd.  
 Number of mines opened and closed during the year ending 31st  
 December 1914—contd.

Province.	District.	Number of mines opened.	Number of mines closed.
MADRAS . . . . .	Coimbatore . . . . .	...	1
	Nellore . . . . .	23	43
	Salem . . . . .	1	4
TOTAL		24	48
RAJPUTANA . . . . .	Ajmer . . . . .	1	...
	Merwara . . . . .	1	...
TOTAL		2	...
TOTAL (MICA)		171	314
<b>C.—MANGANESE.</b>			
CENTRAL PROVINCES . . . . .	Bhandara . . . . .	...	2
	Balaghat . . . . .	2	6
	Nagpur . . . . .	...	11
TOTAL		2	19
MADRAS . . . . .	Visagapatam . . . . .	...	5
TOTAL (MANGANESE)		2	24
<b>D.—LIMESTONE.</b>			
CENTRAL PROVINCES . . . . .	Jabalpur . . . . .	6	9
PANJAB . . . . .	Hoshiarpur . . . . .	1	1
TOTAL (LIMESTONE)		7	10
<b>E.—CHROMITE.</b>			
BALUCHISTAN . . . . .	Zhob . . . . .	4	...
<b>F.—CLAY.</b>			
CENTRAL PROVINCES . . . . .	Jabalpur . . . . .	1	...
<b>G.—IRON.</b>			
CENTRAL PROVINCES . . . . .	Jabalpur . . . . .	...	1
<b>H.—WOLFRAM.</b>			
BURMA . . . . .	Tavoy . . . . .	4	11
<b>I.—GEMS.</b>			
BURMA . . . . .	Mogok . . . . .	1	1
<b>J.—TIN.</b>			
BURMA . . . . .	Tavoy . . . . .	1	2

APPENDIX I—*concl.*Table No. 2—*concl.*

Number of mines opened and closed during the year ending 31st  
December 1914—*concl.*

Province.	District.	Number of mines opened.	Number of mines closed.
<b>K.—STEATITE.</b>			
CENTRAL PROVINCES . . . . .	Jabalpur . . . . .	...	3
MADRAS . . . . .	Kurnool . . . . .	...	1
TOTAL (STEATITE)		....	4
<b>L.—SLATE.</b>			
PANJAB . . . . .	Gurgaon . . . . .	...	1
<b>M.—GALENA.</b>			
CENTRAL PROVINCES . . . . .	Drug . . . . .	1	1
<b>N.—CORUNDUM.</b>			
MADRAS . . . . .	Trichinopoly . . . . .	...	1
<b>O.—SAMARSKITE.</b>			
MADRAS . . . . .	Nellore . . . . .	1	1
<b>P.—PITCHBLENDE.</b>			
BIHAR AND ORISSA . . . . .	Gaya . . . . .	1	...
<b>Q.—TRIPLITE.</b>			
BIHAR AND ORISSA . . . . .	Gaya . . . . .	1	...
<b>R.—GRANITE.</b>			
BUERMA . . . . .	Amherst . . . . .	...	2
<b>S.—BAUXITE.</b>			
CENTRAL PROVINCES . . . . .	Jabalpur . . . . .	...	1
GRAND TOTAL		266	431

APPENDIX I—*contd.*

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, fuller's earth, clay, galena, corundum, samarskite, bauxite, granite, triplite and pitchblende.

Year.	Coal.	Manganese.	Mica.	Limestone.	Salt.	Wolfram.	Gold.	Copper.
	Tons.	Tons.	Cwts.	Tons.	Tons.	Cwts.	Troy ozs.	Tons.
1905 . . .	7,770,471	204,194	25,548	93,170	94,078	...	93	2
1906 . . .	9,112,663	436,442	50,438	43,836	118,023	...	...	...
1907 . . .	10,526,468	642,082	44,919	73,222	101,703	...	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	408,669	21,375	81,253	119,867	18	3,269	864
1911 . . .	12,048,726	441,426	31,686	92,602	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	188,540	27,520	11,019	3,639
1914 . . .	15,727,631	555,672	33,189	146,505	135,518	31,526	19,873	4,400

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 1905 to 1914 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.
1905 . . .	7,770,471	79,506	58	7.46	.72
1906 . . .	9,112,663	90,159	80	8.73	.89
1907 . . .	10,526,468	102,689	89	8.45	.86
1908 . . .	12,149,020	120,107	164	13.40	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	12.23	1.38
1912 . . .	14,044,368	121,392	167	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

APPENDIX I—*concl'd.*

Table No. 5.

Statement showing the output of coal, the number of persons employed and the number of tons of coal raised per person employed in and about the coal mines of the principal coal-producing countries of the world :—

YEAR.	Country.	Tons of coal raised.	Persons employed.	Tons raised per person employed.
1913	United Kingdom . . . . .	287,411,869	1,127,890	254
1912	United States . . . . .	477,204,635	722,662	660
"	Germany . . . . .	251,768,300	718,073	350
"	Austria-Hungary . . . . .	51,691,931	130,748*	395
"	France . . . . .	39,755,949	202,865	196
"	Belgium . . . . .	22,609,180	146,207	154
"	Nova Scotia . . . . .	6,802,997	16,297	511
"	British Columbia . . . . .	3,025,709	7,130	424
"	Australia . . . . .	11,729,775	21,842*	537
"	Natal . . . . .	2,468,811	9,409	262
"	Transvaal . . . . .	4,242,723	9,261	458
"	Japan . . . . .	19,329,447	152,429	126
"	New Zealand . . . . .	2,177,615	4,328	503
1910	Russia . . . . .	25,031,716	180,333	139
		1,176,260,057	3,446,564	341
1914	British India . . . . .	15,727,631	137,351	114

\* Number of persons employed at coal mines in Hungary and Tasmania not available.

**APPENDIX II.**  
**ACCIDENTS IN MINES.**

Table No. 1.  
List of Fatal Accidents in mines regulated by the Indian Mines Act, 1901, during the year 1914.

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.
<b>EXPLOSIONS OF FIREDAMP—(1 death).</b>						
1	9th January, 9 A.M.	Old West Ledo Valley Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Mandhari Bengali, (m.), 35, "Opening" man.	Coal	Deceased was engaged in firing dynamite shots in a "chamber" by means of a fuse and a lighted rag when an ignition of gas took place and he was burned so severely that he died six days afterwards. The rag had been lighted by the European assistant foreman who had opened his safety lamp for the purpose, and who claimed to have tested for gas before charging the shot holes. Inspection and inquiry made. See Report, page 5.
<b>FALLS OF ROOF AND SIDE—(95 deaths).</b>						
<b>(a) Falls of Roof—(49 deaths).</b>						
2	6th January, 4 A.M.	Chanah Mine, Chirkunda P. O., Bihar and Orissa.	Bengal Coal Co., Ltd.	Sonatan Bauri, (m.), 24, Mohinda Bauri, (m.), 27, , Miners.	Coal	A piece of roof coal, measuring 18' x 9' x 2' 6" thick, fell and killed the two deceased outright. They were engaged in getting it down at the time. The roof had two loose ends and one side was traversed by a "slip." The place was well timbered. Inspection and inquiry made.
3	27th January, 7 P.M.	Kendwadifi Mine, Kusunda P. O., Bihar and Orissa.	East Indian Coal Co., Ltd.	Barka Manjhi, (m.), 16, Miner.	Coal	Deceased worked in a pillar cutting district and was returning to his working place after having emptied a basket of coal, when a mass of top coal, weighing about two tons, fell upon him from the roof, killing him on the spot. Inspection and inquiry made.
4	12th February, 8 A.M.	Ganzlatan Mine, Sijua P. O., Bihar and Orissa.	New Manbhum Coal Co., Ltd.	Murat Passi, (m.), 35, Miner.	Coal	Deceased was working in a dip gallery and it is presumed that hearing sounds indicating a weakness in the roof, he attempted to run out to safety. He was, however, killed instantly by a large mass of falling stone and coal measuring 35' x 7' x 1' 10". Inspection and inquiry made.
5	17th February, 2-30 P.M.	Budeadh Mine, Giridih P. O., Bihar and Orissa.	Budeadh Coal Co.	Hardayal Mallah, (m.), 45, Prepping mistri.	Coal	Deceased passed through a fence and entered some old workings when a piece of roof stone, measuring 6' x 5' x 2', fell from a "slip" and killed him on the spot. A man who went to the rescue was also struck by a small piece of stone and sustained a comminuted fracture of the right leg. Inspection and inquiry made.
6	19th February, 12-40 P.M.	Lower Tikak Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Dhaneewar Musohar, (m.), 40, Sirdar. Girao Lohar, (m.), 23, Coal shoveller.	Coal	Whilst the two deceased were at work in a "chamber", measuring 25' x 15', a mass of about sixty tons of coal fell without warning from converging "slips" in the roof and killed them on the spot. Inspection and inquiry made.



APPENDIX II—contd.

Fatal Accidents, 1914—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.
<b>FALLS OF ROOF AND SIDES—(contd.)</b>						
<b>(a) Falls of Roof—contd.</b>						
7	21st February, 2 P.M.	New Tetturia Mine, Katrasgarh P. O., Bihar and Orissa.	New Tetturia Coal Co., Ld.	Lakhu Bauri, (m.), 30, <i>Coal-cutter.</i>	Coal	Deceased, during the temporary absence of the sirdar, went behind a fence to rob top coal at the corner of a pillar. Whilst so doing, a mass of coal and stone, weighing about two tons, fell upon him from the roof. He died an hour and a half afterwards from injuries sustained. Inspection and inquiry made.
8	24th February, 1-30 P.M.	East Kurkend Mine, Kirkend P. O., Bihar and Orissa.	Marine Coal Co., Ld.	Bhusan Manjhi, (m.), 45, <i>Coal-cutter.</i>	Coal	Deceased was working in the face of a dip gallery, which was about 6 feet in height and in which 6 inches of top coal formed part of the roof, when a large mass of stone and coal, measuring 3' x 5' x 3' thick, fell from the roof upon him and killed him instantly. Inspection and inquiry made.
9	21st April, 12 noon.	Fatka Mine, Nirshachati P. O., Bihar and Orissa.	Fatka Coal Co.	Gobinda Mahato, (m.), 18, <i>Coal-cutter.</i>	Coal	Deceased, during the temporary absence of the sirdar went behind a fence to gather coal. Whilst so doing a mass of coal and stone, weighing about two tons, fell upon him from the roof, from a height of 6' 6". He died two days later from injuries received. Inspection and inquiry made.
10	27th April, 8 P.M.	Jamadoba Mine, Jamadoba P. O., Bihar and Orissa.	Indian Collieries Syndicate, Ld.	Raghunath Gosain, (m.), 30, <i>Mine sirdar.</i>	Coal	Deceased, a mine sirdar, deliberately went through a fence into a goaf area from which the timber had been withdrawn two days before, to get some coal from a chowkidar left behind. He had thrown out about ten cwts. when the roof fell, over an area of 15' x 15' x 10' thick, killing him instantly. Inspection and inquiry made.
11	3rd June, 1 P.M.	Pahargora Mine, Samdih P. O., Bengal.	F. W. Heilgers and Bros.	Paru Manjhi, (m.), 32, <i>Miner.</i>	Coal	Deceased, during the temporary absence of the sirdar, began to cut roof coal. After having done so and whilst filling a tub, a ton of coal, in several pieces, fell upon him from the roof at a height of 13' 6". He died two hours afterwards from shock. Inspection and inquiry made.
12	6th June, 5 A.M.	Burra Dhemu Mine, Sitarampur P. O., Bengal.	Burra Dhemu Coal Co., Ld.	Sashi Bauri, (m.), 32, <i>Miner.</i>	Coal	Deceased went behind a fence to rob a pillar. Whilst so doing, a mass of roof stone, measuring 5' 6" x 2' 6" x 1' 0", fell upon him from a height of 4 feet. He was severely injured internally and died six and a half hours later. Inspection and inquiry made.
13	24th June, 5 P.M.	Dhobidih Mine, Giridih P. O., Bihar and Orissa.	Bengal Giridih Coal Co., Ld.	Siva Musohar, (m.), 23, Pirchand Barhi, (m.), 24, Lali Bai, (m.), 28, Sankar Rai, (m.), 16, <i>Coal-cutters.</i> Ranwa Ghatwarin, (f.), 30, Gandari Ghatwarin, (f.), 20, <i>Coal-carriers.</i>	Coal	Seventeen persons were engaged in reducing a thin pillar of coal in a seam 10 feet thick and in a goaf 68' x 70' from which all coal had been removed. When the pillar was about 3' square it suddenly collapsed. All the persons fled to a place of safety, but after the head of the gang had satisfied himself there was no "weighting," six of them decided to go back to get the fallen coal. Shortly afterwards 2,000 c. ft. of sandstone roof being 6" thick and weighing about 130 tons fell on them, killing them outright. Inspection and inquiry made. See Report, page 6.

14	25th June, 9-30 A.M.	Simlabahal Mine, Jharia P. O., Bihar and Orissa.	Dhalgora Coal Co., Ltd.	Basu Singh, (m.), 50, <i>Miner.</i>	Coal .	On the day previous to the accident deceased had gone into a fenced off gallery close to the loading line to rob some coal and had been turned out by the sirdar, on the following morning deceased instead of going where he was told, again went into the same gallery and started to cut coal when about three tons of coal fell from two "slips" in the roof at a height of 7 feet and killed him instantly. Inspection and inquiry made.
15	15th July 12 noon	South-East Baraboni Mine, Oharanpur P. O., Bengal.	Maharaja M. C. Nandi	Keola Kol, (m.), 35, <i>Miner,</i> Sonia Kolin, (f.), 18, <i>Coal-carrier.</i>	Coal .	A piece of coal, lenticular in shape, measuring 18' long x 5' 6", in the extreme width 1' 8" thick, fell from a height of 16 ft. in a gallery and killed the two deceased outright. The coal came away from an exposed "fault" on one side and from a "cleat" on the other side. Inspection and inquiry made.
16	10th July, 8-30 P.M.	Sudhi Mine, Sitarampur P. O., Bengal.	Sudhi Coal Co., Ltd.	Goman Bauri, (m.), 25, Bisto Bauri, (m.), 30, <i>Miners.</i> Rakhal Bauri, (m.), 27, <i>Propping coolie.</i>	Coal .	A fall of roof coal and stone, measuring 62' x 40' x 3' 7" thick, fell from a height of 5 ft. in an old goaf which had been "weighting." The fall took place first from half the area and extinguished all the lights in the mine. In the confusion which followed the three deceased entered the goaf and were buried by the fall from the remaining half. Inspection and inquiry made.
17	20th July, 10-15 A.M.	Saltore Mine, Dihargarh P. O., Bihar and Orissa.	Saltore Coal Co., Ltd.	Hopna Manjhi, (m.), 30, <i>Miner.</i>	Coal .	Deceased and two companions were engaged in cutting down roof coal in a gallery, when the piece of coal on which they were working, measuring 18' x 1' 6" x 3' thick, fell from a height of 17' 6". The shock occasioned by the fall brought on an epileptic fit from which deceased never recovered consciousness. The coal was full of very pronounced "cleats" that ran parallel with the sides of the gallery. Inspection and inquiry made.
18	21st August, 10 A.M.	Panohgatoihin Mine, Sitarampur P. O., Bengal.	Lutohipur Coal Co., Ltd.	Dnan Turi, (m.), 35, <i>Coal-cutter.</i>	Coal .	Deceased and a companion were working in a gallery getting down roof coal. Deceased had been warned not to pass under the coal but, disregarding the warning, did so and was struck by a mass, measuring 8' x 3' x 1' 6" and weighing about 6 cwts., which fell from a height of 5' 6". He died within three hours from the injuries received. Inspection and inquiry made.
19	20th August, 10-30 A.M.	Tikak Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Gopal Uria, (m.), 24, <i>Coal shoveller.</i>	Coal .	Whilst six persons were at work in a "chamber," measuring 50' x 18' x 10' high, three tons of coal fell from a "slip" in the roof without warning. Deceased, who was shovelling coal at the time, was killed on the spot. Inspection and inquiry made.
20	30th August, morning.	Basudin Mine, Ajmer P. O., Rajputana.	Rajputana Mica and Mineral Co., Ltd.	Binja, (m.), 25, <i>Labourer.</i>	Mica .	Deceased went into a closed portion of the mine to get shade while crushing up his tobacco and was suffocated by a fall of earth.
21	0th September, 12 midnight.	Bhuggudih Mine, Jharia P. O., Bihar and Orissa.	Bengal-Nagpur Coal Co., Ltd.	Harku Mahato, (m.), 40, <i>Coal-cutter,</i> Nuni Mullik, (f.), 30, <i>Carrier.</i>	Coal .	The two deceased went through a fence to rob coal from a pillar which had been fenced off that morning because the roof was "weighting," when about eight cwts. fell from a "slip" in the overhanging coal. Harku was killed outright and Nuni died as she was being taken out of the mine. Inspection and inquiry made.
22	10th September, 5-30 A.M.	Tikak Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Birbahadur Chattri, (m.), 29, <i>Coal shoveller.</i>	Coal .	Whilst deceased was shovelling in a "chamber," measuring 55' x 25' x 18' high, about ten tons of coal and clay fell from the roof without warning. He sustained injuries from which he died shortly afterwards. Four other persons escaped. Inspection and inquiry made.

APPENDIX II—contd.

Fatal Accidents, 1914—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.
<b>FALLS OF ROOF AND SIDES—(contd.)</b>						
(a) Falls of Roof—concl'd.						
23	11th September, 3 A.M.	Nandi Mine, Nandi P. O., Bengal.	Adjai Coal Co., Ltd.	Hopna Manjhan, (f.), 32, Coal-carrier.	Coal.	Deceased was loading in a gallery, and whilst so doing a mass of roof stone, measuring 4' 9" x 8' 9" x 8" thick, and tapering to feather edges, fell upon her from a height of 14' 6", inflicting injuries which caused instant death. Inspection and inquiry made.
24	18th September, 2-30 P.M.	Bhulanbarari Mine, Jamadoba P. O., Bihar and Orissa.	Bhulanbarari Coal Co., Ltd.	Jagu Kol, (m.), 30, Miner.	Coal.	Whilst deceased was sitting down near the face of the gallery in which he worked, a fall of roof stone occurred. He sustained injuries from which he died two days later. The stone which fell was a round mass of impure iron stone 3 feet in diameter and 2' 6" thick. It had been imbedded partly in the roof, but mainly in the coal at the top of the seam. Inspection and inquiry made.
25	26th September, 3 P.M.	Jharia Khas Mine, Jharia P. O., Bihar and Orissa.	Standard Coal Co., Ltd.	Mongal Chamar, (m.), 35, Coal-cutter.	Coal.	Whilst deceased was assisting another miner to take down roof coal in a gallery 10 feet high, a mass of coal weighing about two tons fell away from "slips" in the roof. He was struck by the falling coal and killed on the spot. Inspection and inquiry made.
26	16th October, 1 A.M.	Central Kurkend Mine, Kusunda P. O., Bihar and Orissa.	Central Kurkend Coal Co., Ltd.	Gangia Kolin, (f.), 25, Coal-carrier.	Coal.	Deceased was employed in loading coal in a gallery when roof coal was being taken down. She was killed on the spot by the fall of a mass of "jhamms" (burnt coal) from the roof. The mass was wedge shaped and measured, 6' x 8' to 3' to 0' thick. It fell from between converging "slips", from a height of 10 feet. Inspection and inquiry made.
27	20th October, 8 A.M.	Sor Range Mine, Quitta P. O., Baluchistan.	S. Pherozeshaw.	Rozadin, (m.), 30, Miner.	Coal.	Deceased was killed by a fall of about a ton of shale which fell from the roof from a height of 2 feet on to him.
28	11th November, 12-30 P.M.	Jharia Khas Mine, Jharia P. O., Bihar and Orissa.	Standard Coal Co., Ltd.	Birbal Kumar, (m.), 35, Lachia Kumarin, (f.), 10, Coal-carriers.	Coal.	Whilst the two deceased were loading coal in the face of a gallery a mass of shale, measuring 6' x 3' 6" thick, fell from the roof at a "fault" from a height of 7 feet. Birbal died on the spot and Lachia sustained a compound fracture of the leg, and died some days later. Inspection and inquiry made.
29	19th November, 1 P.M.	Hatnol Mine, Dishargarh P. O., Bengal.	M. L. Laik and Bros.	Mohesh Bauri, (m.), 28, Jogindra Bauri, (m.), 23, Miners.	Coal.	The two deceased entered a gallery that they and all the officials of the mine knew to be dangerous, and started to cut roof coal without authority. A piece of coal, measuring 4' 6" x 4' 9" x 1' 6" thick, fell from a height of 8' 9" and killed them outright. A girl aged fourteen who was carrying coal for them was knocked over by a piece of rolling coal and was injured. Inspection and inquiry made.

80	24th November, 10-30 A.M.	Bhutgoria Mine, Jamadoba P. O., Bihar and Orissa.	Aldih Coal Co., Ltd.	Behari Mahato, (m.), 17, <i>Pump khalasi.</i>	Coal .	Deceased was cleaning out the suction pipe of a pump under his charge, whilst so engaged a thin slab of stone, measuring 2' x 1' x 2' thick, fell from the roof and fractured his leg. He died in hospital a month later. Inspection and inquiry made.
81	27th November, 5 P.M.	Ashakuti Mine, Katragarh P. O., Bihar and Orissa.	Parascole Coal Co., Ltd.	Thakur Manjhi, (m.), 20, <i>Coal-cutter.</i>	Coal .	Deceased, in the absence of the sirdar who had gone to another part of the mine, went through a fence to cut coal from a pillar. Whilst so engaged, a mass of coal and stone band, measuring 5' 6" x 3' 0" x 8" thick, fell upon him from a height of 6 feet and broke his back. He died one and a half hours afterwards. Inspection and inquiry made.
82	2nd December, 3 A.M.	Bhaga Mine, Jharis P. O., Bihar and Orissa.	Lodna Colliery Co., Ltd.	Sundar Bauri, (m.), 35, <i>Miner.</i>	Coal .	Deceased in the absence of the sirdar, broke down two fences, and went beyond them to rob a pillar. Whilst so engaged a mass of roof coal, weighing about 10 cwts., fell upon his head and killed him instantly. Inspection and inquiry made.
83	17th December, 12-30 P.M.	Chinchuria Mine, Asansol P. O., Bengal.	New Birbhum Coal Co., Ltd.	Dhobani Dhobi, (m.), 35, <i>Propping matri.</i>	Coal .	Against the explicit orders of his superiors and in their absence deceased passed under a fence to sound the roof of a goaf. Whilst so doing, a mass of coal, measuring 20' x 10' x 2' 6" and weighing about 10 tons, fell from a height of 10 feet upon him. He was killed instantly. Inspection and inquiry made.
84	17th December, 1-30 P.M.	East Ledo Valley Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Jhuri Ahir, (m.), 34, <i>"Opening" man.</i>	Coal .	Whilst deceased was standing at the entrance to a "chamber" he was killed by the fall from the roof of about a ton of coal. Inspection and inquiry made.
85	21st December, 6-30 A.M.	Nodiha Mine, Dishargarh P. O., Bihar and Orissa.	Nodiha Coal Co., Ltd.	Ati Mullick, (f.), 26, <i>Kamin.</i>	Coal .	Deceased was working in a gallery of a pillar-cutting district when a large area of roof stone fell in the goaf. The vibration consequent upon this caused a stone, measuring 5' x 4' x 6" thick, to fall upon her from the roof from a height of 8 feet. She was killed instantly. Inspection and inquiry made.
86	25th December, 4-30 A.M.	Dandot Mine, Choa Saidan Shah P. O., Panjab.	Thakur and Ramji Dass	Monlu, (m.), 28, <i>Miner.</i>	Coal .	Deceased was cutting coal which was very loose when a slab of roof shale, 5' long x 3' 6" wide and of unknown thickness, gave way at the end next to the coal which it crushed beneath it. There was a bag full of coal lying between two of a row of chocks. This bag barred his gress and the slab caught him between the line of chocks and the coal face and killed him.
(b) Falls of side—(47 deaths).						
87	3rd January, 12-10 A.M.	Bhowra Mine, Jamadoba P. O., Bihar and Orissa.	Eastern Coal Co., Ltd.	Sukar Bhuia, (m.), 18, <i>Coal-cutter.</i>	Coal .	Deceased was struck by the fall of about two tons of coal from the corner of a pillar on a travelling road passing through an area of split pillars. He died on the way to hospital. The travelling road was fenced. Inspection and inquiry made.
88	22nd January, 2-30 P.M.	Kachidhana Mine, Sansar P. O., Central Provinces.	Indian Manganese Co., Ltd.	Torsi Mehra, (f.), 50, <i>Ore carrying coolie.</i>	Manganese .	Deceased with another woman went to gather some ore lying below a piece of ground, on which work had been stopped by the manning of a fortnight before. About one and a half tons of earth fell covering deceased entirely and breaking her neck. The other woman was partially buried but was uninjured. Inspection and inquiry made.
89	23rd January, 8-30 P.M.	Tikak Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Sampat Koiri, (m.), 28, <i>Coal shoveller.</i>	Coal .	Deceased whilst loading in a "chamber", measuring 63' x 25' x 0' to 18' high, was injured by the fall of about a ton of coal from the side of the "chamber" from a height of 12 feet. The head sirdar was present and had tested the sides. Inspection and inquiry made.

APPENDIX II—contd.

Fatal Accidents, 1914—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 minerals worked.	Cause of accident and remarks.
<b>FALLS OF ROOF AND SIDES—contd.</b>						
<i>(b) Falls of side—contd.</i>						
40	3rd February, 2 A.M.	Bhuggutdih Mine, Jharia P. O., Bihar and Orissa.	Bengal-Nagpur Coal Co., Ld.	Chowa Meah, (m.), 30, <i>Coal-cutter.</i>	Coal . . .	Deceased went behind a fence to rob the side of a pillar and whilst doing so, a mass of coal, weighing about one and a half tons, fell on him killing him instantly. Inspection and inquiry made.
41	4th February, 11-30 A.M.	Môkô Mine, Tavoy P. O., Lower Burma.	Moung Ni Toe . . .	Maung Shwe Yoe, (m.), 53, Mah Kya Yin, (f.), 20, <i>Coolies.</i>	Wolfram . . .	As the two deceased, who were father and daughter, were working in an open cutting 4' 6" high by 5' wide, a portion of the side of the cutting collapsed and buried them. Maung Shwe Yoe was killed instantly and Mah Kya Yin died as soon as liberated.
42	9th February, 7 A.M.	Lariatand Mine, Hazaribagh P. O., Bihar and Orissa.	Bihakuari . . .	Mussamat Sukri Bhuiani, (f.), 24, Mussamat Murti Bhuiani, (f.), 24, <i>Labourers.</i>	Mica . . .	The two deceased together with a girl of seventeen years of age entered an abandoned-mica mine to get some felspar for whitewashing their buts. A collapse of earth occurred and the deceased were totally buried and when dug out were dead. The girl sustained minor injuries. Prosecution against owner initiated. <i>See Report, page 13.</i>
43	13th February, 3 P.M.	Sudriandih Mine, Nowagarh P. O., Bihar and Orissa.	Sudriandih Coal Co., Ld.	Giridhari Roy, (m.), 35, <i>Coal-cutter.</i> Jogna Roy, (f.), 30, Lakri Roy, (f.), 24, <i>Coal-carriers.</i>	Coal . . .	Whilst miners were at work on a pillar in a "broken" district, a mass of under-cut coal, measuring 17' long × 4' to 10' high × 1' 3" to 4' thick, fell from the side of the opposite pillar killing the three deceased on the spot. Inspection and inquiry made.
44	26th February, 4 A.M.	Bagdiggi Mine, Jharia P. O., Bihar and Orissa.	C. J. Smith . . .	Phucha Manjhi, (m.), 30, <i>Coal-cutter.</i>	Coal . . .	Deceased was set to cut floor coal by the overman and night-shift airer. During their absence he began to undercut the side of a pillar about 30 ft. away from his appointed working place. Whilst so doing a mass of coal, weighing about one and a half tons fell. A piece weighing about 1 cwt. fell upon his head and killed him instantly. Inspection and inquiry made.
45	10th March, 1 P.M.	Jharia Khas Mine, Jharia P. O., Bihar and Orissa.	Standard Coal Co., Ld.	Etwari Turi, (m.), 26, <i>Coal-cutter.</i>	Coal . . .	Deceased was loading coal at the base of a pillar and whilst so doing, a mass of coal, measuring 8' × 4' × 2' thick, together with several smaller lumps, fell from a height of 7' 11". Deceased was struck by some of the smaller falling coal and rendered unconscious, and was found half an hour later with his nose and mouth buried in dust coal. Death was caused by suffocation. Inspection and inquiry made.
40	12th March, 2 P.M.	Bansdeopur Mine, Kusanda P. O., Bihar and Orissa.	Bansdeopur Coal Co.	Karu Manjhi, (m.), 22, <i>Coal-cutter.</i> Budhni Manjhan, (f.), 20, <i>Carrier.</i>	Coal	The two deceased went down the pit on a Puja day, unknown to the management, who had made no arrangement for the colliery to be worked. They went behind a fence to rob a pillar and whilst undercutting a corner of it, a large mass of coal, weighing between eight to ten tons, fell upon them.

47	30th March, 6-15 A.M.	Bansdeopur Mine, Kusunda P. O., Bihar and Orissa.	Bansdeopur Coal Co.	Doyal Gope, (m.), 28, <i>Coal-cutter.</i>	Coal	Deceased had gone behind a fence to rob the corner of a pillar and while so doing, a mass of coal, weighing about 10 tons, fell. He was struck by several small pieces of coal which fell from a height of about 20 feet. He was killed instantly. Inspection and inquiry made.
48	11th April, 6 P.M.	Bhuggutdih Mine, Jharua P. O., Bihar and Orissa.	Bengal-Nagpur Coal Co., Ld.	Bepot Meah, (m.), 50, <i>Coal-cutter.</i>	Coal	Deceased went through a fence and began to rob coal from the corner of a pillar, when the corner came away from two "slips" and about five tons, fell on him. He was standing on a barrel and was knocked down inside it being killed instantly. Inspection and inquiry made.
40	12th April, 5-20 A.M.	Nimeha Mine, Searsal P. O., Bengal.	Baraboni Coal Concern, Ld.	Sri Ram Mullick, (m.), 23, <i>Coal-cutter.</i>	Coal	Four persons were cutting coal from the side of a pillar in a fenced area when a block of coal, measuring 49' x 5' 10" x 8' high, fell from a height of 7 feet and killed deceased outright and seriously injured two others. Inspection and inquiry made.
50	18th April, 11-30 A.M.	Balaghat Mine, Dongri P. O., Central Provinces.	Central Provinces Pros- pecting Syndicate, Ld.	Anantram Marar, (m.), 25, <i>Rock worker.</i>	Manganese	A slab of rock, measuring 10' x 4' x 1' 6" thick, slid off a joint plane near the top of the excavation and fell on deceased at a point about 20 feet lower down, killing him instantly.
51	20th April 5 P. M.	Hermyingyi Mine, Tavoy P. O., Burma.	Hermyingyi Mining Co., Ld.	Po Tun, (m.), 25, <i>Labourer.</i>	Wolfram	Deceased after kicking down some of the reef near the surface of an excavation 20 ft. deep sat down in the bottom of the excavation to rest in the shade. Whilst sitting there some of the ground which his work had probably loosened fell on him causing injuries from which he died on his way to hospital.
52	11th June, 1 A.M.	East Kurkend Mine, Kurkend P. O., Bihar and Orissa.	Marine Coal Co., Ld.	Bhupan Meah, (m.), 30, <i>Miner.</i>	Coal	Whilst a pillar of coal was being split in a pillar cutting district a piece of coal, 2' 6" x 2' 6" x 1' 3", after being side cut by deceased, came away suddenly from a hidden "slip" and fell on his left thigh. He walked out of the pit, but died the following day from peritonitis, caused by the blow. Inspection and inquiry made.
53	18th June, 10-30 P.M.	Barari Mine, Jamadoba P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	Mohinda Rai, (m.), 30, <i>Miner.</i>	Coal	Deceased broke down a fence and began to rob coal from a pillar corner, when about ten tons fell and caught him, causing injuries from which he died some five hours later. Inspection and inquiry made.
54	18th June, 11-30 A.M.	Khurhurbari Mine, Giridih P. O., Bihar and Orissa.	East Indian Railway Co.	Khubi Dosadh, (m.), 35, <i>Jig brakeman.</i>	Coal	A piece of coal, measuring 6' x 7' 0" x 1' 6" thick fell from the overhanging side of a gallery and killed deceased outright. He was probably sitting down talking to his brother who was, it is surmised, getting down the coal at the time. The miners who were working at this place and who were related to the deceased were doing so against orders. A sirdar was dismissed and the company refused to pay the usual compensation to the deceased relatives. Inspection and inquiry made.
55	18th July, 9 P.M.	Lower Tikak Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ld.	Moubir Mongor, (m.), 25, <i>Coal loader.</i>	Coal	Whilst deceased was loading coal in a "chamber" a lump of loose coal, weighing about one ton, rolled down from the rise side and killed him on the spot. The dip is 1 in 3. The sirdar heard the coal moving and shouted a warning, but deceased failed to get out of the way. Inspection and inquiry made.

APPENDIX II—contd.

Fatal Accidents, 1914—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 miner worked.	Cause of accident and remarks.
<b>FALLS OF ROOF AND SIDES—contd.</b>						
(b) Falls of Side—contd.						
56	24th July, 7 A.M.	West Ledo Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Ganga Gere, (m.), 28, Coal shoveller.	Coal	In the process of forming a "chamber" the pillars surrounding it became crushed. Whilst the sirdars were examining the "chamber" and the workmen were sitting down some distance back, a mass of about a ton of coal fell from the side of the tram road and killed deceased on the spot. The road was 5' 6" wide and 6' high. Inspection and inquiry made.
57	5th August, 10-15 P.M.	New Suratand Mine, Jharia P. O., Bihar and Orissa.	J. L. Banerjee & Co.	Bhadu Mullick, (m.), 36, Coal-cutter.	Coal	Deceased went through a fence and started cutting the side of a pillar when a piece of coal, measuring 10' x 3' 0" x 2' thick, fell from a "slip" and broke his right ankle. He died from shock thirty-six hours later. Inspection and inquiry made.
58	11th August, 2 P.M.	Dandot Mine, Dandot P. O., Panjab.	Ishar Dass	Akbar, (m.), 30, Propman.	Coal	Deceased was withdrawing timber when a piece of the side of the gallery fell upon him. The case at first was not thought serious, but the patient died about six weeks afterwards, probably, from internal injuries.
59	28th August, 3 P.M.	Kurkend Mine, Kurkend P. O., Bihar and Orissa.	Kurkend Coal Co.	Churnah Mahato, (m.), 25, Miner.	Coal	Deceased was engaged in getting down overhanging coal from a pillar in a pillar cutting area when about two tons fell. He was struck on the head and sustained injuries from which he died within the hour. Inspection and inquiry made.
60	31st August, 11 A.M.	West Ledo Valley Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Chuni, (m.), 34, "Opening" man. Chandra Bhabdur Lama, (m.), 26, Sirdar.	Coal	During a temporary stoppage of work the two deceased were sitting down at the entrance to a "chamber" 33' x 24' x 20' high, when a mass of coal, weighing about one and-a-half tons fell from the side and killed them on the spot. Inspection and inquiry made.
61	11th September, 11-45 A.M.	North Kustore Mine, Kusunda P. O., Bihar and Orissa.	Kusunda and Nayadi Collieries, Ltd.	Nisau Harin, (f.), 13, Sarada Harin, (f.), 14, Coal-carriers.	Coal	As the two deceased were carrying out coal to load a tub, about three tons of side coal fell without warning, killing them instantly. The cohesion of the mass that fell had been destroyed by the roof coal being out a few days previously, and support should have been afforded. Inspection and inquiry made.
62	8th October, 1 A.M.	East Kurkend Mine, Kurkend P. O., Bihar and Orissa.	Marine Coal Co., Ltd.	Badal Kol, (m.), 42, Miner.	Coal	Deceased went into an unfenced gallery of a pillaring district to bring down some top coal. Whilst so doing, a piece of coal, two cubic feet in size, and weighing about one and a half cwts. fell upon his head and killed him instantly. Inspection and inquiry made.
63	8th October, 4 P.M.	Jamadoba Mine, Jamadoba P. O., Bihar and Orissa.	Indian Collieries Syndi- cate, Ltd.	Saida Bilaspuri, (m.), 35, Coal-cutter.	Coal	Deceased and a companion were told to out floor coal in a gallery in a pillar cutting district. During the absence of the sirdar deceased went behind a fence to rob the side of a pillar. Whilst so doing, a mass of coal, measuring 4' 6" x 2' 4" x 8" thick and weighing about 2 cwts. fell upon him and broke his spine, an injury from which he died four hours later. Inspection and inquiry made.

64	18th October, 6-30 A.M.	Barari Mine, Jamunoba P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	Kashi Korin, (f.), 30, Coal-carrier.	Coal	Deceased was employed in loading small coal, and contrary to orders, entered a gallery fenced off on account of loose and dangerous sides. Whilst there, she was knocked down and killed on the spot by the fall of about a ton of coal from the side. Inspection and inquiry made.
65	16th October, 10-30 A.M.	Bansdeopur Mine, Kusanda P. O., Bihar and Orissa.	Bansdeopur Coal Co.	Bismi Bhuiani, (f.), 13, Carrier.	Coal	Deceased was loading coal in a gallery of a pillar cutting district. Whilst so engaged, a mass of coal, measuring 10' x 8' x 3' thick, fell from a side of an adjacent pillar. A warning was shouted by the sirdars in charge but deceased, instead of running out of the gallery, ran into the falling coal. Her body was recovered ten minutes later, but life was then extinct. Inspection and inquiry made.
66	17th October, 12 noon.	Thingandon Mine, Tavoy P. O., Burma.	Tavoy Concessions, Ld.	Thee Yin, (m.), 16, Coolie.	Wolfram	Deceased was working with two other coolies in a small open cutting on a reef, when about a ton of stones and earth fell on him from the side and from a height of about 10 feet and killed him.
67	24th October, 4 P.M.	Hermyingyi Mine, Tavoy P. O., Burma.	Hermyingyi Mining Co., Ld.	Shwo Tha, (m.), 27, Miner.	Wolfram	Deceased was working on a reef in an open cutting, sitting down and using a crowbar. About a ton of earth fell from the surface 19 feet above him and buried him. When dug out he was found to be dead.
68	30th October, 10 P.M.	Titilmuri Mine, Sijua P. O., Bihar and Orissa.	Titilmuri Collieries, Ld.	Sama Bhuia, (m.), 28, Miner.	Coal	Deceased left his appointed working place, during the absence of the sirdar, to cut floor coal in an adjacent gallery. Whilst so engaged, a mass of coal, weighing approximately three tons, fell from off the pillar side. He was killed on the spot. Inspection and inquiry made.
69	21st November, 2-30 P.M.	Phularibnd Mine, Jharia P. O., Bihar and Orissa.	Khas Jharia Coal Co.	Bhattu Bhuin, (m.), 35, Coal-cutter.	Coal	Deceased passed through a fence into discontinued workings and began to rob coal from the corner of a pillar. Whilst so engaged about one and a half tons of coal fell upon him from the side at a height of 10 feet. He died an hour later. Inspection and inquiry made.
70	30th November, 11 A.M.	Hermyingyi Mine, Tavoy P. O., Burma.	Hermyingyi Mining Co., Ld.	Ah Chong, (m.), 27, Miner.	Wolfram	Deceased was working on a reef in an open out when about two tons of earth and stone fell upon him from a height of about 8 feet, killing him instantly.
71	11th December, 11 P.M.	Aldih Mine, Sitarampur P. O., Bengal.	Aldih Coal Co., Ld.	Patan Singh, (m.), 12, Coal-filler.	Coal	Deceased was filling coal in a gallery. Whilst so doing, a piece of side coal, lying between two "alips," and weighing about 70 lbs, fell upon him from a height of about 5 feet. Deceased complained only of a pain in his chest and was able to proceed home, but died thirteen hours later from shock. Inspection and inquiry made.
72	17th December, 2 P.M.	Borjan Mine, Behabor P. O., Assam.	Nazira Coal Co., Ld.	Kadir Dhat Mekrani, (m.), 28, Coal-cutter.	Coal	Whilst deceased was at work in a level 6 feet high by 6 feet wide a mass of stone, measuring 3' x 1' 6" x 8" thick, fell from the side on him. He was pinned down with his face on the floor and when extricated, ten minutes later, he was dead. Inspection and inquiry made.
73	19th December, 6-40 A.M.	Khost Mine Khost P. O., Baluchistan.	North-Western Railway	Jiwan, (m.), 15, Carpenter's coolie.	Coal	Deceased was sitting or lying on the goaf in the coal face which was secured by a line of props, backed by corrugated sheets. One prop broke suddenly and the prop, a sheet, and about one and a half cwt. of coal fell upon him, killing him instantly.
74	24th December, 4-30 P.M.	Kalonta Mine, Tavoy P. O., Burma.	Tavoy Concessions, Ld.	Dhaman Thapa, (m.), 22, Coolie.	Wolfram	About three tons of earth fell from the side of an open out on to deceased. There were no visible injuries and his death was probably due to internal injuries. The fall was due to the heavy rain which fell the night previous.



APPENDIX II—contd.

Fatal Accidents, 1914—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.
<b>FALLS OF ROOF AND SIDES—concl'd.</b>						
<b>(b) Falls of side—concl'd.</b>						
75	80th December, 12-45 P.M.	Charanpur Mine, Charanpur P. O., Bengal.	Reliance Coal Co., Ltd.	Somi Kolin, (f), 13, Loader.	Coal.	Deceased was loading coal when a piece of coal, measuring 4' 6" x 9' x 2' thick, fell from a height of 5 feet, from a break formed in the course of working and killed him instantly. It is possible that a miner working close by accelerated the fall and the pillars were being extracted in an irregular manner. Inspection and inquiry made.
76	31st December, 4-30 P.M.	Sodepur Mine, Sitarampur P. O., Bengal.	Bengal Coal Co., Ltd.	Dhanraj Rajwar, (m.), 40, Miner.	Coal.	Deceased holed, against orders, to a glassy face in the vicinity of a "fault" and brought down upon himself a triangular piece of coal, measuring 13' 9" x 4' 6" x 8' high. He was killed outright. Inspection and inquiry made.
<b>IN SHAFTS—(22 deaths).</b>						
<b>Overwinding—(3 deaths).</b>						
77	8th August, 0-10 A.M.	Charanpur Mine, Charanpur P. O., Bengal.	Reliance Coal Co., Ltd.	Dewan Khan, (m.), 36, Onsetter. Kadu Roy, (m.), 30, Assistant Onsetter.	Coal.	Just after an undisclosed overwind had taken place about midnight the two deceased entered the cage which was standing at the surface. They were lowered a few feet when the rope became detached from the capel and the cage dropped a distance of 251 feet to the shaft bottom. The overwind had caused the rings of the capel to be loosened. They were killed instantly. Inspection and inquiry made.
78	30th November, 11-30 A.M.	Rakha Hills Mine, Rakha Mines P. O., Bihar and Orissa.	Cape Copper Co., Ltd.	Parosa, (m.), 35, Underground coolie.	Copper.	A winding engineman, having received a signal to lower the skip down a shaft, raised it instead up into the sheaves. The bridle nuts were sheared and the skip ran wild down the skipway, killing deceased, who was working in the sink, at a depth of 145 feet. Three other persons were injured. Inspection and inquiry made. See Report, page 7.
<b>Ascending or descending by machinery—(4 deaths).</b>						
79	29th June, 7-30 A.M.	Toposi Mine, Toposi P. O., Bengal.	Bansra Coal Co., Ltd.	Rakhal Karmakar, (m.), 37, Fitter mistri.	Coal.	Deceased with four other men, was descending a shaft when a guide rope broke, and this caused the cage to tilt at one end. Deceased fell out of the cage to the bottom of the shaft about 100 feet below and was killed instantly. Inspection and inquiry made.
80	5th July, 5 P.M.	Pahargora Mine, Samdih P. O., Bengal.	F. W. Heilgers and Brothers.	Mahindi Muchi, (m.), 22, Fireman.	Coal.	Deceased and three other men were being wound up a pumping shaft in a bucket by means of a steam winch. When within 3 feet of the surface, three coils of the winding rope slipped off the drum and the bucket dropped back in the shaft for a distance of about from 10 to 13 feet. Deceased was flung out of the bucket and fell to the bottom of the shaft and was killed. His body was recovered two days later. Inspection and inquiry made.
81	9th August, 4 A.M.	Kendwadih Mine, Kusunda P. O., Bihar and Orissa.	East Indian Coal Co., Ltd.	Rambakash Kurmi, (m.), 30, Trolleyman.	Coal.	Deceased while being raised in a shaft 108 feet deep fell out of the cage to the shaft bottom and was killed. It was alleged that he fainted from the effects of smoking Ganja. The cage was not fitted with gates or safety bars or even with the usual hand-rail. Inspection and inquiry made.

82	16th September, 6 A.M.	Rakha Hills Mine, Rakha Mines P. O., Bihar and Orissa.	Cape Copper Co., Ltd.	Raghanath, (m.), 39, <i>Underground mistri.</i>	Copper	On the arrival of the skip at the top of a shaft, deceased was discovered in the skip. He was quite dead and had sustained severe injuries. It is probable that he put his head out of the skip as it was taking the curve where the shaft passes from the vertical to the underlay. He had been riding in the skip against explicit orders. Inspection and inquiry made.
<b>Falling into shaft from the surface—(2 deaths).</b>						
83	14th February, 4.30 P.M.	Mayo Mine, Chanda P. O., Central Provinces.	Mullah Hasanally Nathu- boy.	Szdnshu Kunbi, (m.), 40, <i>Sinker.</i>	Coal	As deceased was being hoisted out of a shaft in a shallow iron bucket he let go the rope when he had reached a distance of about 3 feet from the pit top. He fell to the bottom of the shaft a distance of about 60 feet and was killed. Inspection and inquiry made.
84	1st March, 9 P.M.	North Singaran Mine, Toposi P. O., Bengal.	Upper India Coal Co.	Kunti Baurin, (f.), 50, <i>Rassi kamin.</i>	Coal	Deceased who was employed as a rope puller at a sinking pit which was 50 feet deep, fell down the pit at night while work was stopped for the evening meal. She died in a few minutes. The front of the pit was unfenced. Inspection and inquiry made. Prosecution initiated against manager. <i>See Report, page 13.</i>
<b>Falling from part of the way down—(3 deaths).</b>						
85	14th February, 3 P.M.	Sodepur 9 and 10 pits Mine, Sitarampur P. O., Bengal.	Bengal Coal Co., Ltd.	Teku Menh, (m.), 38, <i>Stone cutting sirdar.</i>	Coal	While a cage was at rest at a landing, situated 400 feet from the surface in a shaft 912 feet deep, and after some pumpmen had left the cage and entered the landing, deceased who was a stone-cutting sirdar and who had remained behind in the cage apparently lifted the fence bar and attempted to enter the landing. He missed his footing and fell to the bottom of the shaft being killed instantly. Inspection and inquiry made.
86	27th March, 10 A.M.	Jibutil Mine, Morrison P. O., Madras.	Jibutil (Anantapur) Gold Mines, Ltd.	Vaniyambadi Manu-swami, (m.), 30, <i>Contractor's coolie.</i>	Gold	As deceased, who had been working in a sink was climbing out of it on a ladder, he fell from the ladder, a distance of about 20 feet and was killed.
87	3rd June, 6 P.M.	Bankaimulla Mine, Charanpur P. O., Bengal.	Bengal Coal Co., Ltd.	Ganpatia Mahato, (m.), 35, <i>Gallery driver.</i>	Coal	Deceased had been working with another miner in a gallery near a landing in a shaft, which was 100 feet up from the shaft bottom. Whilst his companion continued working he went towards the shaft to get into the cage. He evidently made a mistake as to which cage was at rest at the landing and falling down the shaft was killed. The shaft was properly fitted with signals, landing boards and fences. Inspection and inquiry made.
<b>Things falling from the surface—(4 deaths).</b>						
88	2nd March, 4 A.M.	Loyabad Mine, Bansjora P. O., Bihar and Orissa.	Parakar Coal Co., Ltd.	Kangu Kahar, (m.), 50, Durjan Gope, (m.), 18, <i>Sinkers.</i>	Coal	The top of a sinking pit, 60 feet deep was fitted with two sinking doors. The trolley was laid along the line of these doors instead of across it. The banksman shouted to the trolleyman to push the trolley over the pit, apparently forgetting that the doors were open. The trolley and bucket consequently fell down the pit and killed the two deceased. Two other men were injured. There were fifteen men in the shaft. Inspection and inquiry made and prosecution initiated against the manager. <i>See Report, pages 8 and 14.</i>
89	2nd August, 12-15 P.M.	Jamuria Mine, Nandi P. O., Bengal.	Equitable Coal Co., Ltd.	Chhedhi Singh, (m.), 24, <i>Timbering coolie.</i>	Coal	Deceased had been helping to load timber into a cage at the bottom of a shaft 187 feet deep. Whilst a loaded cage was being drawn to the surface one of the props struck the buntion supporting the "keps" and fell down the shaft. Deceased was standing outside the bottom protection boards, drinking from a stream of water which falls in the shaft, when the prop fell upon his head and killed him instantly. Inspection and inquiry made.
90	18th October, 3 A.M.	Alkusa and Kiska Mine, Kusunda P. O., Bihar and Orissa.	Kanga & Co.	Etwarri Dosadh, (m.), 35, <i>Onsetter.</i>	Coal	The deceased, an onsetter, had loaded a cage and was placing the check bar in position when a piece of coal, about a 4½" cube in size, fell from the cage at the surface upon his head, causing a fracture of the skull, an injury from which he died two and a half hours later. Inspection and inquiry made.

APPENDIX II—*contd.*

Fatal Accidents, 1914—*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.
<b>IN SHAFTS—<i>concl'd.</i></b>						
<b>Things falling from part of the way down—(2 deaths).</b>						
91	7th November, 9.30 A.M.	Butaria Mine, Pench P. O., Central Provinces.	H. V. Low & Co.	Buksu Jaswa, (m.), 40, <i>Miner.</i>	Coal	Deceased was working at the bottom of a shaft 46 feet deep when a piece of clay, weighing about 30 lbs., fell from a clay bed 3 feet thick, which was situated 6 feet from the surface and struck him with such force that he died from his injuries an hour later. Inspection and inquiry made and prosecution initiated against manager.
92	7th December, 6 A.M.	Raghnathbati Mine, Sitarampur P. O., Bengal.	Sudhi Coal Co., Ltd.	Burra Abdal Sheik, (m.), 30, <i>Fitter's coolie.</i>	Coal	Deceased and a companion were ascending a shaft in an open bucket when a piece of stone fell from the lip of a gallery of an intermediate seam into the bucket and fractured deceased's neck and skull. He died twelve hours later. Inspection and inquiry made.
<b>Miscellaneous—(4 deaths).</b>						
93	5th January, 10 A.M.	Simlabahal Mine, Jharia P. O., Bihar and Orissa.	Bhalgora Coal Co., Ltd.	Jamahir Singh, (m.), 23, Dhanukdhari Singh, (m.), 50, <i>Sinkers.</i>	Coal	The two deceased were standing on a pump scaffold in a sinking shaft at a depth of 200 feet. The scaffold, pump and three ranges of pipes, weighing about 8 tons and 3 cwt., were suspended in the shaft by a rope attached directly to the barrel of a single purchase crab winch geared at 24 to 1. While eight men were exerting power at the handle, the winch, the driving axle and both handles broke. The scaffold, etc., fell to the bottom of the shaft 60 feet below. Jamahir was killed on the spot and Dhanukdhari died from his injuries a few days later. Inspection and inquiry made. <i>See Report, page 8.</i>
94	22nd July, 7.30 A.M.	Bhagaband Mine, Jharia P. O., Bihar and Orissa.	Borrea Coal Co., Ltd.	Parmeshwar Singh, (m.), 25, <i>Onsetter.</i>	Coal	Deceased was an ensetter and was found dead under the cage. It is not known how he came to be there. Inspection and inquiry made.
95	9th October, 10.45 A.M.	North Anantapur Mine, Morrison P. O., Madras.	North Anantapur Gold Mines, Ltd.	Bangalore Joseph, (m.), 18, <i>Timber foreman's messenger.</i>	Gold	Deceased was sent up a shaft a few feet above the 55 foot-level in order to lubricate the pump rods. He appears to have climbed into the skip ropes with the result that he was caught by a descending skip and killed.
<b>SUFFOCATION BY GASES—(1 death).</b>						
96	Unknown.	Namdang Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Unknown, (m.), 32	Coal	Deceased's body was found whilst reopening an area of working which had been dammed off for nearly two months. Identification was not possible. No person had been missed. Inspection and inquiry made.
<b>EXPLOSIVES—(16 deaths).</b>						
97	27th January, 1 P.M.	Thorna Mine, Kodarma P. O., Bihar and Orissa.	Tata Sons & Co.	Talu Burbi, (m.), 36, <i>Sinker.</i>	Mica	Deceased and another miner were drilling a hole in a shaft 95 feet deep when a charge of dynamite exploded. Deceased was so severely injured that he died sixteen hours later. The other miner was also injured. The hole had penetrated an old shot hole that contained dynamite as the result of a misfire. The misfire was not suspected as the shot-firer claimed to have counted the full number of shots. Inspection and inquiry made.

98	20th March, 1 P.M.	Balaghat Mine, Balaghat P. O., Central Provinces.	Central Provinces Prospect- ing Syndicate, Ltd.	Sitaram Lodi, (m.), 20, Brijlall Marar, (m.), 30, <i>Shaft workers.</i>	Manganese	The two deceased were drilling in a socket left by a previous round of shots at the bottom of a prospecting shaft. This hole did not appear to have been fired at all, and there was probably a whole cartridge of gelignite left in it. It exploded, killing Sitaram outright and causing injuries to Brijlall from which he died an hour and a half later. The following day a primer cartridge was discovered among the <i>dbris</i> loaded out after the previous round of shots. The shots were fired electrically in series and it is evident that the wires of the detonator in the primer had been short circuited and so it was not exploded. The detonator exploded afterwards when tried. Five other men were in the shaft bottom. Inspection and inquiry made.
99	26th April, 7-16 A.M.	Rakha Hills Mine, Rakha Mines P. O., Bihar and Orissa.	Cape Copper Co., Ltd.	Nanu Nair, (m.), 32, Narayan Nair, (m.), 22, Gopal Nair, (m.), 26, <i>Miners.</i>	Copper	A miss-shot exploded during drilling operations at the face of an inclined shaft, killing Nanu Nair and Narayan Nair outright and injuring two others, one of whom Gopal Nair, died two days later. A diligent search had been made for the miss-shot, but without success and the man in charge ultimately decided to regard it as a miss-count. Inspection and inquiry made.
100	18th May, 9-16 A.M.	Footki Mine, Banajora P. O., Bihar and Orissa.	Eastern Coal Co., Ltd.	Ramlal Dosadh, (m.), 22, Ramdhani Dosadh, (m.), 23, Satus Dosadh, (m.), 18, <i>Stone-cutters.</i>	Coal	Whilst seven persons were at work in a narrow gallery an accidental ignition of gunpowder took place and they were all burnt. The three deceased died two days later. Inspection and inquiry made.
101	16th June, 6 P.M.	Central Dharmaband Mine, Katragarh P. O., Bihar and Orissa.	Central Dharmaband Coal Co., Ltd.	Bansi Ahir, (m.), 28, <i>Stone-cutter.</i>	Coal	By the premature explosion of one out of a round of eight shots deceased was so badly injured that he died in two hours. It is suspected that he and not the authorised shot-firer was firing the shots. Inspection and inquiry made.
102	24th July, 6-30 P.M.	Mayo Mine, Jhelum P. O., Panjab.	Government of India	Fatteh Mahomed, (m.), 22, Lal Din, (m.), 20, Karam Din, (m.), 25, Ahmed Din, (m.), 28, Rajwali, (m.), 25, <i>Miners.</i>	Salt	Whilst a gang of fourteen miners were at work in the end of a tunnel an explosion of some 20 lbs. of country gunpowder contained in a tin-canister took place. Seven men were severely burnt, and the five deceased succumbed to their injuries within a few days. The exact cause of the ignition could not be ascertained, but it was probably due to the careless handling of lights whilst shot holes were being charged or to a spark from a "Auka" found afterwards near the powder canister. Inspection and inquiry made.
103	7th December, 7-40 A.M.	Katho Mine, Mogok P. O., Burma.	Burma Ruby Mines, Ltd.	Ai Oo, (m.), 80, <i>Driller.</i>	Ruby	Deceased was drilling in an old shot hole which must have contained a part of a previous charge. This exploded and killed him.
<b>IRRUPTIONS OF WATER OR FALLING INTO WATER—(3 deaths).</b>						
104	9th April, 8-13 A.M.	Sripur Mine, Kalipahari P. O., Bengal.	Lodna Colliery Co., Ltd.	Bison Gope, (m.), 35, <i>Stone-cutter.</i>	Coal	While alighting from a bucket at the bottom of a sinking shaft, 900 feet deep, deceased failed to reach a platform 13 inches away and fell between the bucket and the platform into the sump, which was 16 feet deep and full of water. In falling he must have injured his head and caused unconsciousness. His body was recovered shortly afterwards. Artificial respiration was applied but without success. Inspection and inquiry made.
105	2nd July, 7-30 A.M.	Bejdih Mine, Sitarampur P. O., Bengal.	Equitable Coal Co., Ltd.	Radha Naman Ray, (m.), 27, <i>Mining sirdar.</i>	Coal	Deceased, against the orders of his superiors, entered the gallery connecting Nos. 2 and 3 pits. While he was there the gallery was flooded by water released at No. 2 pit by previous arrangement and he was drowned. His body was recovered half an hour later. Inspection and inquiry made.

## APPENDIX II—contd.

## Fatal Accidents, 1914—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.
<b>IRRUPTIONS OF WATER OR FALLING INTO WATER—concl'd.</b>						
106	26th July, 5 P.M.	Sukli Mine, Dongri P. O., Central Provinces.	Central India Mining Co., Ld.	Tijana, (f.), 12, Coolie.	Manganese	Deceased was found drowned in a shaft which was an extension of an old excavation. She had probably gone there for the purpose of drinking or washing.
107	5th November, 4 A.M.	Tadainy Mine, Domohanch P. O., Bihar and Orissa.	Johur Mull Sandur Mull	Gokal Meah, (m.), 40, Biju Singh, (m.), 25, Dilu Gope, (m.), 25, Churu Meah, (m.), 25, Miners. Jaman Gope, (m.), 30, Coolie.	Mica	While about sixty persons were present underground, a quantity of water, that had been impounded in some old workings, burst into the mine and flooded the dip workings. Of the above number twenty-eight men and women were submerged. Of these twenty-three were successful in making good their escape, but that of the five deceased was cut off and they were drowned. Inspection and inquiry made. <i>See Report, page 9.</i>
<b>HAULAGE—(21 deaths).</b>						
108	2nd January, 2 A.M.	South-East Baraboni Mine, Charanpur P. O., Bengal.	Maharaja M. C. Nandi	Mangal Manjhi, (m.), 20, Bankaman.	Coal	A set of eight empty tubs were pushed over the brow of an incline without being attached to the rope and deceased was caught and run over. He died almost immediately. Inspection and inquiry made.
109	20th February, 13-30 P.M.	Mudidih Mine, Sijua P. O., Bihar and Orissa.	Reliance Coal Co., Ld.	Mangal Rajwar, (m.), 25, Hookman.	Coal	Whilst a train of three tubs was being drawn up an incline a coupling shackle broke. The last tub ran wild down the incline and striking deceased inflicted an injury to the skull from which he died on the following day. The breaking of the shackle was due to a serious flaw in its construction. Inspection and inquiry made.
110	23rd February, 11 A.M.	Aldih Mine, Sitarampur P. O., Bengal.	Aldih Coal Co., Ld.	Khella Dasadh, (m.), 45, Pulley greaser.	Coal	Deceased was greasing a friction roller, while a set of four empty tubs was descending an incline. It is surmised that in stepping out of the way of the set, he missed his foothold on the sloping ballast and fell forward under the leading tub. He was killed outright. Inspection and inquiry made.
111	28th February, 2-30 P.M.	Dishargarh Mine, Dishargarh P. O., Bengal.	Equitable Coal Co., Ld.	Bonomali Bauri, (m.), 32, Rail coolie.	Coal	Through failing to give the signal to stop in time at the top of an underground haulage plane, a loaded set collided with a buffer and broke the rope. The set thus released ran back and became derailed at the points. Continuing forward it crashed into a prop behind which deceased had taken refuge, knocking it out and breaking his leg. He died three hours later from hemorrhage and shock. The lighting at the top of the plane was by safety lamps only and the signalling arrangements were primitive. Inspection and inquiry made. <i>See Report, page 9.</i>

112	5th March, 2 P.M.	Namdang Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Jawahir Passi, (m.), 40, <i>Trammer.</i>	Coal	Deceased went to sleep by the side of a tub road with his feet resting on the rails. A loaded tub was pushed out and ran over both feet inflicting injuries from which he died three months later. Inspection and inquiry made.
113	11th March, 6-15 A.M.	Sodepur No. 10 Mine, Sitarampur P. O., Bengal.	Bengal Coal Co., Ltd.	Dukhn Mullick, (m.), 22, <i>Trolleyman.</i>	Coal	A loaded tub ran wild through the failure to couple it to a set that was about to be lowered in a jig. Deceased, who was in charge of the jig bottom, and heard the tub coming, withdrew a short distance into a level, but not far enough to prevent his leg being caught by the tub and fractured. He was hurled across the road and sustained also a fracture of the skull which resulted in his death twenty-nine hours later. Inspection and inquiry made.
114	4th April, 4-30 A.M.	Barari Mine, Jamadoba P. O., Bihar and Orissa.	East Indian Coal Co., Ltd.	Madan Manjhi, (m.), 30, <i>Hookman.</i>	Coal	A train of empty tubs was being lowered rapidly down a haulage slope and into a level, when deceased in attempting to sprag the leading tub, slipped and fell under it. He died from his injuries five weeks later. Inspection and inquiry made.
115	15th April, 10 A.M.	Lakorka Mine, Katragarah P. O., Bihar and Orissa.	Lakorka Coal Co., Ltd.	Khedon Sheikh, (m.), 35, <i>Miner.</i>	Coal	Owing to the carelessness of the tubman four tubs were allowed to run wild down an incline. They dashed into a small sump, 40 feet beyond the end of the rails, breaking the suction pipe of a pump. Deceased who was dressing side coal at the point had his thigh fractured by the broken pipe. As a result of the accident double pneumonia set in and he died six days later. Inspection and inquiry made. <i>See Report, page 10.</i>
116	1st May, 4-30 A.M.	Jamadoba Mine, Jamadoba P. O., Bihar and Orissa.	Indian Collieries Syn- dicate, Ltd.	Rupia Ghatwarin, (f.), 30, <i>Coal-carrier.</i>	Coal	Whilst deceased was crossing an endless rope haulage road, carrying a pan of lighted coal, she was knocked down by a tub. She may have been half asleep, or perhaps the smoke from the pan blinded her. There was a proper road which she ought to have used. She died five days later from blood-poisoning. Inspection and inquiry made.
117	25th May, 11-30 P.M.	Joyramdanga Mine, Asansol P. O., Bengal.	New Birbhum Coal Co., Ltd.	Dharam Hazra, (m.), 40, <i>Hookman.</i>	Coal	A set of six empty tubs was being lowered too rapidly down an incline. The engine-man suddenly tightened the rope with the consequence that the ensuing jerk caused a link to break between the third and fourth tubs. The leading four tubs ran wild and severely injured deceased, who was stationed at No. 4 east level. He died from his injuries within a few hours. Inspection and inquiry made.
118	23th June, 11-30 A.M.	Sodepur Mine, Sitarampur P. O., Bengal.	Bengal Coal Co., Ltd.	Shaheb Singh, (m.), 50, <i>Tindal coolie.</i>	Coal	A return wheel was being taken up a self-acting incline, rising 1 in 6 and 300 feet in length. A set of five tubs, three and a half of which were loaded, formed the balancing load. The deceased was one of a gang of coolies, under a sirdar in charge of the balance load. Orders had been given that, should the set stop, it had to be restarted by pushing the tubs; on no account had any one to jump on the couplings between the tubs. Deceased disobeyed these orders and the set getting out of control dashed into a "dead end." He was caught between the tubs receiving abdominal injuries from which he died two days later. Inspection and inquiry made.
119	31st July, 10-30 A.M.	Titilmuri Mine, Sijua P. O., Bihar and Orissa.	Titilmuri Collieries, Ltd.	Sothe Roy, (m.), 47, <i>Miner.</i>	Coal	Deceased was in the main dip when a set of tubs ran wild. He tried to get into the landing but was caught and crushed against the corner of a pillar and killed outright. The set was provided with a bar-hook which acted properly as it threw the tubs off the line, but the tubs were carried down on their sides against the pillar. Inspection and inquiry made.

APPENDIX II—contd.

Fatal Accidents, 1914—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.
<b>HAULAGE—concl'd.</b>						
120	19th August, 2 P.M.	Kusunda Mine, Kusunda P. O., Bihar and Orissa.	Patel & Co.	Gajadhar Sow, (m.), 20, Hookman.	Coal	Deceased was a hookman at a haulage incline and was riding on the front of a full set of tubs. In getting off he evidently miscalculated his distance, and getting off too late was fatally crushed between the set and the side of the road. The practice of riding on the tubs should not have been allowed. Inspection and inquiry made. See Report, page 10.
121	22nd August, 8 A.M.	West Ledo Valley Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Fakir Mekrani, (m.), 25, Coal-cutter.	Coal	Deceased was riding on a train of loaded tubs drawn by a locomotive. Whilst the train was passing through a tunnel he fell off and sustained injuries to which he succumbed a month later. Inspection and inquiry made.
122	30th August, 5 A.M.	Jogta Mine, Sijua P. O., Bihar and Orissa.	Agabeg Bros.	Kokil Bhuia, (m.), 25, Trolleyman.	Coal	Deceased in trying to get out of the way of a runaway tub on a haulage incline fell and sustained a fractured skull. He never recovered consciousness and died five days later. Inspection and inquiry made.
123	8th September, 9-30 P.M.	Serampur Mine, Giridih P. O., Bihar and Orissa.	East Indian Railway Co.	Manik Hazam, (m.), 60, Trolleyman.	Coal	Deceased was engaged in lifting a derailed tub when a set of five empty tubs which had been arrested a short distance away on a grade of 1 in 8 by means of wedges, overran the latter and collided with the derailed tub. He was pinned against the side of the road, and sustained injuries from the effects of which he died an hour later. Inspection and inquiry made.
124	19th September, 9 A.M.	Mohpani Mine, Mohpani P. O., Central Provinces.	Great Indian Peninsula Railway.	Budha Katia, (m.), 30, Carpenter's coolie.	Coal	During the absence of the mate deceased went through a fence into an incline. He was caught by an empty set of tubs and died almost immediately.
125	16th October, 10-30 A.M.	West Ledo Valley Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Basha Kachi, (m.), 26, Tramman.	Coal	Deceased had been employed in pushing tubs on a narrow tram road for some months. On this occasion he shouted to the other tramman to push a tub past him. He crouched on one side of the road to let the tub pass. There was room for him and presumably he thought he was clear, but the tub struck him in passing and the blow broke his neck and killed him immediately. Inspection and inquiry made.
126	23rd October, 11-30 A.M.	New Tetturia Mine, Katrasgarh P. O., Bihar and Orissa.	New Tetturia Coal Co., Ltd.	Lolji Bhuia, (m.), 25, Trolleyman.	Coal	As a train of eleven empty tubs was being lowered down an incline, in some way or other the leading two became detached and ran wild. One of them ran over deceased who was standing at the junction of the main incline with a branch level, waiting for the set to come down. He sustained a wound from which he died within half an hour. Inspection and inquiry made.
127	2nd November, 8-30 A.M.	Khost Mine, Khost P. O., Baluchistan.	North-Western Railway	Karim Din, (m.), 18, Carpenter's coolie.	Coal	A set of empty tubs was being lowered into an incline. Deceased was standing at a landing and he expected that the set would stop there for himself and others to get in and be drawn out of the mine. He attempted to get into the set before the set was stopped and his neck was squeezed between the

128	20th December, 11-30 A.M.	Jamgram Mine, Panurra P. O., Bengal.	Barakar Coal Co., Ld.	Dhani Korin, (f), 50, Loader.	Coal	top of the tub and a landing plant about four inches above. He died in a few minutes.  Owing to the inability of the trammer to insert a second sprag a loaded tub ran wild down a grade of 1 in 11 and collided with some empty tubs standing at a shaft bottom. These tubs struck deceased and carried her on to the sump board. She sustained internal injuries from the effects of which she died two hours later. Inspection and inquiry made.
<b>SUNDRIES UNDERGROUND.—(10 deaths).</b>						
129	12th January, 10 A.M.	Payage Mine, Tavoy P. O., Lower Burma.	Rangoon Mining Co., Ld.	Ah Swe, (m), 25, Quarryman.	Wo lfram	Whilst working on the face of a quarry 100 feet deep the deceased slipped and fell a distance of 20 feet, sustaining injuries from which he died in hospital ten days later. Inspection and inquiry made.
130	4th April, 8-30 P.M.	Charanpur Mine, Charanpur P. O., Bengal.	Apcar & Co.	Longra Bauri, (m), 28, Timber mistri.	Coal	Deceased, a sirdar, and another timber mistri were watching the roof while a prop was being withdrawn from a goaf. As the roof began to "weight" the sirdar gave orders for every one to leave the gallery. Deceased in running out slipped up a small embankment and falling fractured his jaw. Concussion of the brain ensued and he died two days later. Inspection and inquiry made.
181	10th April, 3 P.M.	Jibutil Mine, Morriston P. O., Madras.	Jibutil (Anantapur) Gold Mines, Ld.	Kunji Ahmed, (m), 25, Hand jumper coolie.	Gold	Deceased stepped on some drills. He slipped and fell down an almost vertical winze about 70 feet deep and was killed.
182	8rd May, 2 P.M.	Dishargarh Mine, Dishargarh P. O., Bengal.	Equitable Coal Co., Ld.	Guhtram Bauri, (m), 24, Onsetter.	Coal	Deceased had removed the binding tape covering a joint in an electrical cable. In attempting to recover the joint with string and tape he received a shock which caused his death. Inspection and inquiry made.
183	22nd September, 10-10 A.M.	Sodepur Mine, Sitarampur P. O., Bengal.	Bengal Coal Co., Ld.	Bhusan Bauri, (m), 35, Pump khalasi. Raman Bauri, (m), 25, Fitter. Uday Bauri, (m), 25, Fitter's coolie.	Coal	The deceased were engaged in repairing a joint in the delivery pipe of an electric pump when a piece of side coal fell in a gallery and brought one of the electric conductors into contact with the earth wire. The current went to earth partially or wholly through the delivery pipe and the bodies of the men. Death appears to have been instantaneous. Two of the deceased received a shock first and the third while attempting to rescue them in which operation a fourth man was rendered unconscious but recovered. Inspection and inquiry made. See Report, page 11.
184	20th October, 2 A.M.	Khost Mine, Khost P. O., Baluchistan.	North-Western Railway.	Attar Khan, (m), 20, Carpenter's coolie.	Coal	Deceased was sitting on a plank wall of a shoot stenton. Apparently he was asleep for he fell off into the goaf a distance of about 30 feet down at an angle of 60 degrees. He died thirty-two hours later from injuries received.
185	10th November, 8-20 A.M.	Khost Mine, Khost P. O., Baluchistan.	North-Western Railway.	Sant Singh, (m), 25, Tram munshi.	Coal	Deceased was crouching by the side of the road to let a tub pass and he was killed by his head being pinched between the tub and a prop. One trammer with a similar tub had passed him safely a moment before. The second trammer apparently warned the deceased who shouted to him to come on.
186	26th November, 6 A.M.	Chinohuria Mine, Assensol P. O., Bengal.	Baraboni Coal Concern, Ld.	Budhari Manjhi, (m), 30, Minor.	Coal	While deceased and another minor were pushing a loaded tub over a jig brow a cross-beam on which their lamps were suspended was partially dislodged and the lamps were extinguished. In the confusion which followed deceased slipped on the flat sheets and fell with such force on a train rail that he sustained a fracture of the base of the skull, and died four hours later. Inspector and inquiry made.



APPENDIX II—contd.

Fatal Accidents, 1914—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.
<b>SURFACE MACHINERY—(3 deaths).</b>						
137	17th May, 9-45 A.M.	Barari Mine, Jamdoba P. O., Bihar and Orissa.	East Indian Coal Co., Ltd.	Syed Goffur, (m.), 45, <i>Coolie.</i>	Coal .	A cylinder, weighing nearly three tons, was being lifted when one link of the chain of the Weston's Differential pulley block employed broke and the cylinder fell a height of four feet. It rolled over and struck deceased. His spinal column was fractured and he died nearly a month later. Another man sustained a fractured thigh. Inspection and inquiry made.
138	14th October, 12-45 P.M.	North Anantapur Mine, Morrison P.O., Madras.	North Anantapur Gold Mines, Ltd.	Naranyansami, (m.), 18, <i>Fitter's coolie.</i>	Gold .	Deceased was employed on a drilling-machine which was operated by a 2-inch belt, driven off the mill line shafting. The machine became jammed and deceased knocked off the belt which was wound round the shafting. He endeavoured to uncoil it without stopping the shafting and was killed by being caught in the belt.
139	9th November, 10 A.M.	South Kustore Mine, Kustore P.O., Bihar and Orissa.	Raniganj Coal Association, Ltd.	Dukhan Teli, (m.), 18, <i>Screening plant khalasi.</i>	Coal .	Acting without orders, deceased put his hand on the steel belt of an elevator in order to test its tightness. He was drawn into the machinery and killed on the spot. Inspection and inquiry made.
<b>ON SURFACE RAILWAYS AND TRAMWAYS BELONGING TO THE MINE—(3 deaths).</b>						
140	20th September, 3 P.M.	Tirody Mine, Tirody P. O., Central Provinces.	D. Luxminarayan	Ramadin Kol, (m.), 35, <i>Coolie.</i>	Manganese	Deceased was recovering some packing stones from a debris tip, in order to ballast a tram line at a breach, when a loaded tub was brought along and became derailed, with the result that the contents were discharged on to deceased. He died from his injuries six days later. Inspection and inquiry made.
141	30th October, 8-30 A.M.	Donia Mine, Manharpur P. O., Bihar and Orissa.	Bengal Iron and Steel Co., Ltd.	Jhiringa, (m.), 35, <i>Station coolie.</i>	Iron .	A "carrier" lost its grip of the hauling rope on an aerial ropeway, unnoticed by the workman it ran into the terminal station, knocked against another "carrier" which was being unloaded with the result that deceased was killed.
142	25th November, 11 A.M.	Rakha Hills Mine, Rakha Mines P. O., Bihar and Orissa.	Cape Copper Co., Ltd.	Latohu, (m.), 21, <i>Tram coolie.</i>	Copper	Deceased was accidentally jammed between two trolleys which collided on a surface tramway. He was sent to hospital, but refused to stay there and was removed by his friends to his village, where he died a week later.
<b>MISCELLANEOUS ON SURFACE—(11 deaths).</b>						
143	2nd February, 11 A.M.	Balaghat Mine, Dongri P. O., Central Provinces,	Central Provinces Prospecting Synd., Ltd.	Sogni Gond, (f.), 13, <i>Earth-worker.</i>	Manganese .	Deceased overbalanced herself as she was throwing a basket of spoil over the waste-heap and rolled to the bottom of the excavation, about 25 feet below, fracturing her skull. Her parents refused to allow her to be taken to hospital and took her away to their own village where she died eight days afterwards. Inspection and inquiry made.

144	26th February, P	Dherajoba Mine, Kamnda P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	Pran Mahato, (m.), 55, <i>Loading coolie.</i>	Coal .	Deceased on a dark and stormy night appears to have climbed over a wall fencing an incline and to have fallen to the bottom of a cutting where his body was afterwards found. Inspection and inquiry made.
145	2nd July, 1-30 P.M.	Lakorka Mine, Katrasgarh P. O., Bihar and Orissa.	Lakorka Coal Co., Ld.	Kisto Mondal, (m.), 55, <i>Trolleyman.</i>	Coal .	Deceased sat down in a window of a haulage engine-house and dozing off to sleep fell a distance of 6 feet on to his head. He injured his brains and died twenty-four hours later. Inspection and inquiry made.
146	17th July 10-30 A.M.	Hermyingyi Mine, Tavoy P. O., Burma.	Hermyingyi Mining Co., Ld.	Hun Kit, (m.), 37, Yang Cheoung, (m.), 42, <i>Sluicing coolies.</i>	Wolfram	Tributors were sluicing on the slope of a hill, apparently they turned on too much water with the result that about fifty tons of earth and rock slipped down on to the two deceased and killed them. Another man was injured.
147	9th August, 12 noon.	Byoukhoung Mine, Tavoy P. O., Burma.	Tavoy Concessions, Ld.	L. B. Worthington, (m.), 35, <i>Mining engineer.</i>	Wolfram .	Deceased was struck by a falling tree and died the following morning on his way to hospital.
148	10th August, 9 A.M.	Esat Kurkend Mine, Karkend P. O., Bihar and Orissa.	Marine Coal Co., Ld.	Damri Sarri, (m.), 35, <i>Haizi coolie.</i>	Coal .	While a pulley was being lowered from a temporary head-gear, which was being dismantled, one of the anchor ropes, to which the guy ropes of the derrick were attached, broke and the derrick fell striking deceased on the head and causing injuries from which he died about six hours later. Inspection and inquiry made.
149	18th September, 8-50 P.M.	Sorampur Mine, Giridih P. O., Bihar and Orissa.	East Indian Railway Co.	Biju Manjhi, (m.), 22, <i>Coolie.</i>	Coal .	Deceased, with four others, was assisting to remove the door of a coke oven for repairs when the hook, by which it was suspended, gave way and the door fell upon him. He died a few minutes later from the effects of his injuries. Inspection and inquiry made.
150	21st September, 4-15 P.M.	Sitalpur Mine, Dishargarh P. O., Bengal.	Bengal Coal Co., Ld.	Sudam Bauri, (m.), 34, <i>Coolie.</i>	Coal .	An excavation, measuring 10' x 6' at the top x 7' x 3' deep, was being made in compact earth on the surface when a mass of earth, weighing about 5 tons, slipped from one of the sides and struck deceased on the back killing him instantly. The side was sloped at an angle of only 7 $\frac{1}{4}$ ° from the vertical. Inspection and inquiry made.
151	10th October, 2-30 P.M.	Byoukhoung Mine, Tavoy P. O., Burma.	Tavoy Concessions, Ld.	Cow Shoave, (m.), 30, <i>Coolie.</i>	Wolfram .	Deceased was killed by the fall of a large tree. He was said to have been working about 90 feet away. Four other coolies were injured.
152	11th December, 5 P.M.	Khaira Mine, Kodarma P. O., Bihar and Orissa.	Tata Sons & Co.	Jodhon Modi, (m.), 20, <i>Coolie.</i>	Mica .	Deceased, together with another man and woman were engaged in collecting mica from an old waste-heap into which they dug a hole 7 or 8 feet deep. The sides suddenly collapsed and all three were buried. They were taken out alive but deceased expired immediately afterwards probably from shock.

APPENDIX II—contd.

Fatal Accidents, 1914—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.	Reason for exclusion.	Cause of accident and remarks.
<b>DEATHS NOT INCLUDED IN THE STATISTICS—(36 deaths).</b>							
1	18th January, 9 A.M.	Bhelatand Mine, Sijua P. O., Bihar and Orissa.	Tata Iron and Steel Co., Ld.	Rameswar Dass, (m.), 33, Sirdar.	Coal .	Not a mining accident.	Deceased, using a crowbar, attempted to unram a shot hole charged with dynamite and a detonator. An explosion took place and he was killed on the spot. Inspection and inquiry made.
2	22nd January, 3 P.M.	New Tetturia Mine, Katragarh P. O., Bihar and Orissa.	New Tetturia Coal Co., Ld.	Fulia, (f), 3.	Coal .	Not employed.	Deceased went to a boiler tank presumably to drink and in stooping over the tank-wall must have overbalanced herself and been drowned. Inspection and inquiry made.
3	28th January, 6 P.M.	Chora Mine, Chora P. O., Bengal.	N. C. Sircar & Co. .	Mahabir Passi, (m.), 3.	Coal .	Not employed.	A miner took a cartridge of country gunpowder in a tin canister to his house leaving the canister outside the door. He should have taken it straight back to the magazine. Deceased who was his son presumably opened the canister and put the cartridge on the fire, when it exploded causing extensive burns from which he died next morning. Inspection and inquiry made.
4	21st February, 9-30 A.M.	North Anantapur Mine, Morrison P. O., Madras.	North Anantapur Gold Mines, Ld.	Yellamah, (f), 60.	Gold .	Not employed.	Deceased was standing on a surface tramway and was knocked down and killed by a tram loaded with coal which coolies were pushing. She was said to have been deaf.
5	25th February, 10 P.M.	Kajora Mine, Ondal P. O., Bengal.	Kajora Coal Co. .	Lakshmi Manjbian, (f), 18, Coal kamini, Budhani Manjbian, (f), 4.	Coal .	Not a mining accident.	The two deceased children were asleep in their hut, when the next hut caught fire owing to a lighted lamp which had been left burning. Their mother and grand-mother who were also in the hut asleep rushed out without them. Lakshmi came out some minutes later extensively burnt from the effects of which she died. Budhani was burnt to death inside and only her charred remains were found. Inspection and inquiry made.
6	6th March, 2 P.M.	Kasbidhans Mine, Sansar P. O., Central Provinces.	Indian Manganese Co., Ld.	Bhaga, (f), 65.	Manganese .	Not employed.	When standing on the edge of an excavation she fell into it, a depth of six feet, and received such injuries that she died three hours later.
7	7th March, unknown.	Searsol Mine, Searsol P. O., Bengal.	Bani Shyama Sundari Debi.	Puti Sundri, (f), 11.	Coal .	Not employed.	Deceased was drowned in an abandoned unfenced shaft. It is surmised that she accidentally fell into it in the dark. Inspection and inquiry made and prosecution instituted against the owner of the estate. See Report, page 15.
8	Prior to 13th March.	Bhusakajuri Mine, Asansol P. O., Bengal.	Bhusakajuri Coal Co., Ld.	Sonia Kol, (f), 23, Coal-carrier.	Coal .	Not a mining accident.	Deceased had a quarrel with her husband on Monday evening and her body was found in a well on Friday morning. There was a wall round the well about 2' 6" high. It is presumed to have been a case of suicide. Inspection and inquiry made.

9	14th March, 6 P.M.	Kujama Mine, Jharia P. O., Bihar and Orissa.	Basra Coal Co.	Ganga Mallab, (m.), 7.	Coal	Not employed.	Deceased was on the edge of a quarry where blasting was going on and was struck by a stray stone. He received injuries from which he died six days afterwards. Inspection and inquiry made.
10	31st March, 10 A.M.	Bhatdih Mine, Mohoda P. O., Bihar and Orissa.	Bengal Bhatdih Coal Co., Ld.	Murti Peldarin, (f.), 45.	Coal	Not employed.	Deceased was found drowned in a boiler tank but there was no evidence to show how she came to be there. Inspection and inquiry made.
11	9th April, about noon.	Borra Mine, Sitarampur P. O., Bengal.	New Birbhum Coal Co., Ld.	Millo Gopini, (f.), 23.	Coal	Not employed.	Deceased was found floating on the water in an old trial shaft which was incompletely fenced. It is presumed she committed suicide. Inspection and inquiry made and prosecution initiated against manager. See Report, page 14.
12	21st April, 2 A.M.	Kurkend Mine, Kurkend P. O., Bihar and Orissa.	R. B. Sircar & Sons	Somaria Passi, (f.), 26.	Coal	Not employed.	Deceased had been demotised for some time. She left her home at midnight and after taking off all her clothes and leaving them on the surface threw herself down a shaft 211 feet deep. She was killed on the spot. Inspection and inquiry made.
13	Unknown, presumably 22nd April.	Jairamdanga Mine, Asansol P. O., Bengal.	New Birbhum Coal Co., Ld.	Darasnai Bania, (f.), 65.	Coal	Not employed.	Deceased during a fit of temporary insanity, committed suicide by jumping down a shaft. Inspection and inquiry made.
14	3rd May, 5 P.M.	Golukdih Mine, Jharia P. O., Bihar and Orissa.	N. M. Chowdhury & Co.	Nijam Bilaspuri, (m.), 2½.	Coal	Not employed.	Deceased was left alone in a "dhowra" from where he was afterwards missed. His body was discovered subsequently lying in an excavation with his head in water which was about 3 feet deep.
15	4th May, 12 noon.	Baraboni Mine, Asansol P. O., Bengal.	Baraboni Coal Concern, Ld.	Maku Manjhan, (f.), 9	Coal	Not employed.	Deceased, with four companions, went to the quarry to bathe. It is assumed that walking into deep water, she slipped and fell, being drowned before aid could be called. Inspection and inquiry made.
16	6th May, 5-45 P.M.	Kodaigaon Mine, Saonaa P. O., Central Provinces.	Indian Manganese Co., Ld.	Sorwarman, (m.), 4.	Manganese	Not employed.	Deceased was sitting about 8 feet away from his parents who were quarrying ore, when a fall of earth took place and killed the child.
17	20th May, 11-30 A.M.	Sijua Mine, Sijua P. O., Bihar and Orissa.	Sijua Coal Co., Ld.	Gunpatia, (m.), 13, Labourer.	Coal	Not a mining accident.	Deceased was runover during hand shunting operations on an East Indian Railway Company's siding. He was not employed there but should have been at work 300 yards away. He died four weeks later. Inspection and inquiry made.
18	23rd May, 6-45 A.M.	Borra Mine, Sitarampur P. O., Bengal.	New Birbhum Coal Co., Ld.	Ram Gope, (m.), 21	Coal	Not a mining accident and not employed.	Deceased, in attempting to jump into the brake-van of a pilot train leaving the colliery, slipped and fell under the wheels of the train. He died immediately afterwards from the effects of the injuries he received. Inspection and inquiry made.
19	27th May, 6-30 A.M.	Kujama Mine, Jharia P. O., Bihar and Orissa.	Khanji and Sanji Nanji	Karu Bhuian, (m.), 1½ yr.	Coal	Not employed.	While a train of five tubs was being pushed by hand on a surface tram line the front tub became uncoupled and ran by itself down a straight grade. Deceased, who had strayed on to the line, was runover and sustained injuries which resulted in death an hour later. Inspection and inquiry made.
20	27th May, 3 P.M.	Howra Mine, Jamadoba P. O., Bihar and Orissa.	Eastern Coal Co., Ld.	Rameswar, (m.), 9 months.	Coal	Not employed.	Deceased crawled out of the house while his parents were absent and fell into a hole, 10' square x 2' deep, full of water, about ten yards away from the house, and was drowned. Inspection and inquiry made.

APPENDIX II—concl'd.

Fatal Accidents, 1914—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.
<b>DEATHS NOT INCLUDED IN THE STATISTICS—conold.</b>							
21	25th June, 7-6 P.M.	Ena Mine, Dhanbad P. O., Bihar and Orissa.	North-West Coal Co., Ld.	Sobdul Meah, (m), 33, Fireman.	Coal	Not a mining accident.	The body of the deceased was found floating in a fenced boiler tank. It was thought that he was intoxicated when he fell in. Inspection and inquiry made.
22	Unknown, probably 12th July.	South East Baraboni Mine, Charanpur P. O., Bengal.	Maharaja M. C. Nandi	Malho Manjhian, (f), 20, Coal-carrier.	Coal	Not a mining accident.	Deceased, it is surmised, in attempting to get on to the top of the surrounding wall of a well, or whilst standing upon the top thereof for purpose of drawing water overbalanced and fell in. The body was recovered two days later. Inspection and inquiry made.
23	14th July, 3-40 P.M.	West Lodo Valley Mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ld.	Ramindhor, (m), 23, Fireman.	Coal	Not a mining accident.	He appears to have died as the result of a blow. His aggressor was convicted of a criminal offence. Inspection and inquiry made.
24	Unknown, prior to 22nd July.	Gobindpur Mine, Katrasgarh P. O., Bihar and Orissa.	Gobindpur Coal Co., Ld.	Benia Telin, (f), 10.	Coal	Not a mining accident and not employed.	The body of the deceased was found floating in a well near No. 5-11 Incline. It seems to have been a case of suicide as there had been a quarrel on the previous Monday after which deceased was not seen again. Inspection and inquiry made.
25	15th August, 1 A.M.	Chowraai Mine, Dishargarh P. O., Bihar and Orissa.	Equitable Coal Co., Ld.	Karna Domin, (f), 3.	Coal	Not employed.	The body of the deceased was found drowned in a boiler tank, which was not sufficiently fenced. Inspection and inquiry made.
26	20th August, 7 A.M.	Godhur Mine, Kuaranda P. O., Bihar and Orissa.	S. B. Raha and Sons.	Unknown, (m), 25.	Coal	Not a mining accident and not employed.	Deceased was found dead in a small tank 5 feet deep. The post-mortem examination revealed the fact that his spleen was ruptured. There was no evidence to show whether deceased came by his death by accident or violence. Inspection and inquiry made.
27	11th September, 11-45 A.M.	Belrui Mine, Sitarampur P. O., Bengal.	New Birbhum Coal Co., Ld.	Karuna Domin, (f), 32.	Coal	Not employed.	Deceased while crossing a surface tramway was run over by a tram and killed. Inspection and inquiry made.
28	7th October, 5 P.M.	Balaghat Mine, Dongri P. O., Central Provinces.	Central Provinces Prospect- ing Syndicate, Ld.	Bhaiyal Lal, (m), 2.	Manganese	Not employed.	As two loaded wagons were being taken along a tramway, deceased's parents pushing the first wagon, deceased suddenly ran towards them and was run over by the second wagon, sustaining injuries from which he died.
29	10th October, 6 A.M.	Murulidih Mine, Mahoda P. O., Bihar and Orissa.	Bengal Coal Co., Ld.	Mungia Kurmin, (f), 11, Wharf labourer.	Coal	Not a mining accident.	Deceased was underneath a truck helping to push it along a siding. As the truck began to gather speed she attempted to get out from underneath by passing between the front and rear-wheels,

30	12th October, not known.	Searsol Mine, Searsol P. O., Bengal.	Rani Shama Sundari Devi.	Makan Dass, (m.), 45, <i>Village cartier.</i>	Coal . .	Not employed.	Whilst so doing her clothes got caught in the rear-wheel and she was dragged along the ground sustaining injuries from which she died in hospital four hours later. Inspection and inquiry made. <i>See Report, page 12.</i>
31	Unknown, prior to 13th October.	Bhulanbarari Mine, Jamadoba P. O., Bihar and Orissa.	Bhulanbarari Coal Co., Ld.	Unknown, (f.), 32.	Coal . .	Not employed.	Deceased was found drowned in the surface cutting of an abandoned incline. Inspection and inquiry made.
32	Not known, prior to 5th November.	Sudriadih Mine, Nowagarh P. O., Bihar and Orissa.	Sudriadih Coal Co., Ld.	Thakuri Bhagat, (m.), 12.	Coal . .	Not employed.	Deceased went to an old shaft, fenced off, to procure water. It is surmised that whilst so doing he overbalanced himself and fell in. His body was found two days later. Inspection and inquiry made.
33	7th November, 10 A.M.	Jóyrampur Mine, Jharia P. O., Bihar and Orissa.	M. V. A. Coal Concern	Bhola Boldar, (m.), 12, <i>Loading coolie.</i>	Coal . .	Not a mining accident.	Deceased attempted to open the lower door of a covered steel broad-gauge wagon standing on the colliery siding. Whilst so doing, it fell back upon his head, inflicting injuries from which he died within an hour. Inspection and inquiry made.
34	9th November, 5 A.M.	Patiana Mine, Kulti P. O., Bengal.	Nagendra Nath Mandal	Ashu Bauri, (m.), 8.	Coal . .	Not employed.	Deceased fell into a shaft 44 feet deep, containing 6 feet of water and was drowned. The shaft top was not completely fenced. Inspection and inquiry made and prosecution initiated against owner.
35	21st November, 9 A.M.	East Kurkend Mine, Kirkend P. O., Bihar and Orissa.	Marine Coal Co., Ld.	Fulin Baurin, (f.), 50, <i>Domestic servant.</i>	Coal . .	Not employed.	Owing to the collapse of underground workings an area of the surface, measuring 300' x 300', subsided to a depth of 8 feet. Deceased was resident in one of three coolie barracks, involved in the subsidence and was killed by falling masonry. Another woman was slightly injured. Inspection and inquiry made.

## 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 1914.

PROVINCE.	District and mineral field.	Total average number of persons employed daily.	FATAL ACCIDENTS.			SERIOUS ACCIDENTS.			DEATHS OF 1,000 PERSONS EMPLOYED.			
			Number of persons fatal accidents.	NUMBER OF DEATHS.		Number of serious non-fatal accidents.	NUMBER OF PERSONS SERIOUSLY INJURED.		Total number of persons injured.	Below ground.	Above ground.	Per 1,000.
				Below ground.	Above ground.		Total deaths.	Below ground.				
<b>A.—COAL.</b>												
Bihar and Orissa . . . . .	Hazaribagh { Bokaro-Ramgarh. Giridih . . . . .	210	...	...	...	...	...	...	...	...	...	
		8,679	5	9	1	10	15	11	4	15	1.72	.80
	" Jharia . . . . .	376	...	...	...	...	...	...	...	...	...	...
		74,496	53	58	5	68	61	36	25	61	1.24	.18
	" Raniganj . . . . .	5,332	4	5	...	5	1	1	...	1	1.43	...
	Sonthal Parganas, Raniganj . . . . .	30	...	...	...	...	...	...	...	...	...	...
	" Rajmahal . . . . .	135	...	...	...	...	...	...	...	...	...	...
	Palamanu Dalkongaj . . . . .	808	...	...	...	...	2	1	1	2	...	...
Sambalpur, Hingli-Rampur . . . . .	715	...	...	...	...	...	...	...	...	...	...	
	TOTAL . . . . .	90,681	62	72	6	78	79	49	30	79	1.26	.18
Bengal . . . . .	Bankura, Raniganj . . . . .	81	...	...	...	...	...	...	...	...	...	
	Birbhum " . . . . .	33	...	...	...	...	...	...	...	...	...	
	Burdwan " . . . . .	38,765	34	40	1	41	33	31	8	39	1.56	.08
	TOTAL . . . . .	38,879	34	40	1	41	33	31	8	39	1.56	.08
Central Provinces . . . . .	Chhindwara, Pench Valley . . . . .	1,240	1	1	...	1	3	2	1	3	1.12	...
	Narsinghpur, Mohpani . . . . .	1,264	1	1	...	1	2	2	...	2	1.25	...
	Chanda, Ballarpur . . . . .	708	1	1	...	1	2	2	...	2	1.89	...
	Yeotmal . . . . .	42	...	...	...	...	...	...	...	...	...	...
	TOTAL . . . . .	3,254	3	3	...	3	7	6	1	7	1.35	...
Panjab . . . . .	Jhelum . . . . .	901	2	2	...	2	2	3	...	3	3.15	...
	Shahpur . . . . .	101	...	...	...	...	...	...	...	...	...	
	Mianwali . . . . .	169	...	...	...	...	...	...	...	...	...	
	TOTAL . . . . .	1,161	2	2	...	2	2	3	...	3	2.59	...
Assam . . . . .	Lakbimpur . . . . .	2,678	13	15	...	15	78	59	22	81	8.03	...
	Naga Hills . . . . .	190	1	1	...	1	...	...	...	27.03	...	
	TOTAL . . . . .	2,868	14	16	...	16	78	59	22	81	8.39	...
Baluchistan . . . . .	Kalat . . . . .	62	...	...	...	...	...	...	...	...	...	
	Quetta, Fishin . . . . .	117	1	1	...	1	...	...	...	12.82	...	
	Sibi, Khos, etc. . . . .	792	4	4	...	4	5	5	...	5	7.89	...
	Loralai, Loralai . . . . .	30	...	...	...	...	...	...	...	...	...	
	TOTAL . . . . .	1,001	5	5	...	5	5	5	...	5	7.65	...
North-West Frontier Province.	Hazara . . . . .	7	...	...	...	...	...	...	...	...	...	
	GRAND TOTAL (COAL) . . . . .	137,851	130	138	7	145	204	168	61	214	1.66	.14

## APPENDIX II—contd.

Table No. 2—contd.

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, 1901, during the year 1914—contd.

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.		Number of persons injured in 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.
<b>B.—MICA.</b>													
Bihar and Orissa . . . . .	Monghyr . . . . .	618	...	...	...	...	...	...	...	...	...		
	Hazaribagh . . . . .	9,765	4	8	1	9	2	3	...	3	1.47	.30	1.08
	Gaya . . . . .	2,006	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	11,384	4	8	1	9	2	3	...	3	1.14	.23	.79
Madras . . . . .	Coimbatore . . . . .	18	...	...	...	...	...	...	...	...	...	...	...
	Nollore . . . . .	4,928	...	...	...	...	3	4	...	4	...	...	...
	Salom . . . . .	328	...	...	...	...	...	...	...	...	...	...	...
TOTAL	5,289	...	...	...	...	3	4	...	4	...	...	...	
Rajputana . . . . .	Ajmer . . . . .	182	1	1	...	1	...	...	...	...	9.28	...	5.49
	Merwara . . . . .	150	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	332	1	1	...	1	...	...	...	...	4.90	...	8.01
GRAND TOTAL (MICA)		16,985	5	9	1	10	5	7	...	7	.82	.16	.59
<b>C.—MANGANESE.</b>													
Central Provinces . . . . .	Nagpur . . . . .	3,189	...	...	...	...	1	...	...	1	...	...	...
	Bhandara . . . . .	1,731	1	1	...	1	1	...	1	1	.97	...	.58
	Balaghat . . . . .	4,591	4	3	2	5	3	1	2	3	.73	4.15	1.09
	Chhindwara . . . . .	1,135	1	1	...	1	1	1	...	1	.94	...	.88
	Jabalpur . . . . .	28	...	...	...	...	...	...	...	...	...	...	...
TOTAL	10,674	6	5	2	7	6	2	4	6	.59	.93	.66	
Madras . . . . .	Visagapatam . . . . .	1,761	...	...	...	...	1	1	...	1	...	...	...
Bombay . . . . .	Panch Mahals . . . . .	626	...	...	...	...	1	1	...	1	...	...	...
GRAND TOTAL (MANGANESE)		13,061	6	5	2	7	8	4	4	8	.48	.74	.54
<b>D.—LIMESTONE.</b>													
Central Provinces . . . . .	Jabalpur-Katni . . . . .	3,324	...	...	...	...	...	...	...	...	...	...	...
Punjab . . . . .	Hooharpur . . . . .	80	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL (LIMESTONE)		3,384	...	...	...	...	...	...	...	...	...	...	...
<b>E.—SALT.</b>													
Punjab . . . . .	Shahpur . . . . .	32	...	...	...	...	...	...	...	...	...	...	...
	Jhalum . . . . .	857	1	5	...	5	3	3	...	3	6.11	...	5.86
	Mianwali . . . . .	73	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL (SALT)		962	1	5	...	5	3	3	...	3	5.42	...	5.20





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 1914—*concl'd.*

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.			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.			
Bihar and Orissa	Singhbhum		<b>M.—COPPER ORE.</b>										
		1,867	4	5	1	6	3	1	2	3	12.44	.68	3.21
Central Provinces	Jabalpur		<b>N.—FULLER'S EARTH.</b>										
			...	...	...	...	...	...	...	...	...	...	...
Bihar and Orissa	Palamu	23	<b>O.—CLAY.</b>										
Central Provinces	Jabalpur	237	...	...	...	...	...	...	...	...	...	...	...
	<b>GRAND TOTAL (CLAY)</b>	260	...	...	...	...	...	...	...	...	...	...	...
Central Provinces	Drug	92	<b>P.—GALENA.</b>										
			...	...	...	...	...	...	...	...	...	...	...
Central Provinces	Jabalpur	33	<b>Q.—BAUXITE.</b>										
			...	...	...	...	...	...	...	...	...	...	...
Bihar and Orissa	Hasaribagh	15	<b>R.—TIN.</b>										
Burma	Mergui (Maliwan)	†	...	...	...	...	...	...	...	...	...	...	...
	Tavoy	120	...	...	...	...	...	...	...	...	...	...	...
	<b>GRAND TOTAL (TIN)</b>	135	...	...	...	...	...	...	...	...	...	...	...
Central Provinces	Jabalpur	93	<b>S.—STREAVITE.</b>										
Madras	Kurnool	106	...	...	...	...	1	1	1	...	...	...	...
	<b>GRAND TOTAL (STREAVITE)</b>	198	...	...	...	...	1	1	1	...	...	...	...
Burma	Amberst	641	<b>T.—GRANITE.</b>										
			...	...	...	...	...	...	...	...	...	...	...
Madras	Trichinopoly	66	<b>U.—CORUNDUM.</b>										
			...	...	...	...	...	...	...	...	...	...	...
Madras	Nellore	‡	<b>V.—SAMARSKITE.</b>										
			...	...	...	...	...	...	...	...	...	...	...
Bihar and Orissa	Gaya	§	<b>W.—TRIPLEITE.</b>										
			...	...	...	...	...	...	...	...	...	...	...
Bihar and Orissa	Gaya	98	<b>X.—PITCHBLEND.</b>										
			...	...	...	...	...	...	...	...	...	...	...
	<b>GRAND TOTAL (ALL MINERALS)</b>	185,311	152	174	17	191	245	163	75	258	1.45	.26	1.03

\* Figures included with these for Central Provinces Limestone.  
 † " " " " " Mergui Wolfram.  
 ‡ Figures including those for Tripilit.

§ Figures included with these for Madras, Nellore, Mica.  
 || " " " " " Gaya Pitchblende.

## APPENDIX II—contd.

Table No. 3.

Statement of fatal accidents in mines regulated by the Indian Mines Act, 1901, during the year 1914, 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 GROUPED.
			BELOW GROUPED.				ABOVE GROUPED.				
			Adult males.	Adult females.	Children (under 13).	Total.	Adult males.	Adult females.	Children (under 13).	Total.	
COAL	Baluchistan { Quetta-Pishin Sibi	1 4	1 4	...	...	1 4	...	...	...	...	1 4
	TOTAL BALUCHISTAN	5	5	...	...	5	...	...	...	...	5
	Bihar and Orissa. { Giridih Jharia Raniganj	5 53 4	7 47 4	2 11 1	...	9 58 5	1 5 ...	...	...	1 5 ...	10 63 6
	TOTAL BIHAR AND ORISSA.	62	68	14	...	72	6	...	...	6	78
	Bengal—Raniganj	34	35	5	...	40	1	...	...	1	41
	Central Provinces { Chanda Chhindwara Narsinghpur	1 1 1	1 1 1	...	...	1 1 1	...	...	...	...	1 1 1
	TOTAL CENTRAL PROVINCES	3	3	...	...	3	...	...	...	...	3
	Assam { Lakhimpur Naga Hills	13 1	15 1	...	...	15 1	...	...	...	...	15 1
	TOTAL ASSAM	14	16	...	...	16	...	...	...	...	16
	Panjab, Jhelum	2	2	...	...	2	...	...	...	...	2
TOTAL COAL	120	119	19	...	138	7	...	...	7	145	
MANGANESE	Central Provinces { Balaghat Bhandara Chhindwara	4 1 1	4 ...	1 1	...	4 1 1	...	1 ...	...	1 ...	5 1 1
	TOTAL MANGANESE	6	4	2	...	6	...	1	...	1	7
MICA	Bihar and Orissa, Hazaribagh	4	6	2	...	8	1	...	...	1	9
	Rajputana, Ajmer	1	1	...	...	1	...	...	...	...	1
	TOTAL MICA	5	7	2	...	9	1	...	...	1	10
IRON	Bihar and Orissa, Singbhum	1	...	...	...	...	1	...	...	1	1
SALT	Panjab, Jhelum	1	5	...	...	5	...	...	...	...	5
GOLD	Madras, Anantapur	4	3	...	...	3	1	...	...	1	4
WOLFRAM	Burma, Tavoy	10	7	1	...	8	4	...	...	4	12
COPPER	Bihar and Orissa, Singbhum	4	5	...	...	5	1	...	...	1	6
GEMS (RUBIES)	Burma, Mogok	1	1	...	...	1	...	...	...	...	1
GRAND TOTAL (ALL MINERALS)		152	151	24	...	175	15	1	...	16	191

## APPENDIX II—concl'd.

Table No. 4.

Statement of fatal accidents in mines regulated by the Indian Mines Act, 1901, during the year 1914, 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 side.	In shafts.	Suffocation by gases.	By explosives.	Implosion of water or falling into water.	Heavings.	Miscellaneous below ground.	Surfaces.	Total deaths.	Below ground.	Above ground.	Below and above ground.
Coal . . . . .	120	1	47	36	18	1	4	2	21	8	7	145	1.66	.14	1.05
Mica . . . . .	5	...	1	2	...	...	1	5	...	...	1	10	.82	.16	.69
Manganese . . . . .	6	...	...	2	...	...	2	1	...	...	2	7	.48	.74	.54
Salt . . . . .	1	...	...	...	...	...	5	...	...	...	...	5	5.42	...	5.20
Gems (Rubies) . . . . .	1	...	...	...	...	...	1	...	...	...	...	1	1.16	...	.58
Gold . . . . .	4	...	...	...	2	...	...	...	...	1	1	4	4.95	.70	1.96
Iron . . . . .	1	...	...	...	...	...	...	...	...	...	1	1	—	7.67	.84
Wolfram . . . . .	10	...	...	7	...	...	...	...	...	1	4	12	4.31	3.40	3.96
Copper . . . . .	4	...	...	...	2	...	3	...	...	...	1	6	12.44	.68	3.21
Total 1914 . . . . .	152	1	48	47	22	1	16	8	21	10	17	191	1.45	.26	1.03
Total preceding year.	136	29	41	37	29	1	2	30	16	14	12	311	1.71	.19	1.16
Difference . . . . .	+16	-28	+7	+10	-7	...	+14	-22	+5	-4	+5	-20	-.26	+7	-.13

## APPENDIX III.

## PROSECUTIONS UNDER THE MINES ACT.

Statement of prosecutions instituted under the Indian Mines Act, 1901, during the year 1914.

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 3 of Notification No. 11798-103, dated 30th December 1908. Section 20, Rule 19 of Notification No. 864-68-20, dated 10th March 1904. Section 20, Rule 47 of Notification No. 2968-82, dated 21st April 1906.	
	Do.	1	1	1	Section 20, Rule 8 of Notification No. 11798-103, dated 30th December 1908.	
	Gaya	1	1	1	Section 20, Rule 1 of Notification No. 11798-103, dated 30th December 1908.	
	Manbhum	1	1	...	Section 20, Rule 5 of Notification No. 864-68-20, dated 10th March 1904.	Acquitted.
	Do.	1	1	...	Ditto ditto	Do.
	Do.	1	1	...	Ditto ditto	Do.
Central Provinces	Do.	1	1	...	Ditto ditto	Do.
	Balaghat	1	1	1	Section 20, Rules 2, 3 and 5 of Notification No. 6436-162, dated 2nd September 1911.	
Bihar and Orissa	Hazaribagh	1	1	1	Section 20, Rule 1 of Notification No. 11798-103, dated 30th December 1908.	
	Manbhum	1	2	2	Ditto ditto.	
	Do.	1	1	...	Ditto ditto	Absconded.
Bengal	Do.	1	1	...	Ditto ditto	Not tried in 1914.
	Burdwan	1	1	...	Ditto ditto	Withdrawn.
Central Provinces	Nagpur	1	1	1	Section 20, Rules 3, 5 and 12 of Notification No. 6436-162, dated 2nd September 1911.	
	Do.	1	1	1	Ditto ditto.	
Bengal	Bhandara	1	1	1	Section 20, Rules 3, 9 and 12 of Notification No. 6436-162, dated 2nd September 1911.	Acquitted in regard to rule 3.
	Burdwan	1	1	1	Indian Mines Act, 1901, Section 13 (1), and Section 20, Rule 19 of Notification No. 864-68-20, dated 10th March 1904.	
Bihar and Orissa	Hazaribagh	1	2	1	Section 20, Rule 1 of Notification No. 11798-103, dated 30th December 1908.	
Bengal	Burdwan	1	1	1	Indian Mines Act, 1901, Section 13 (1).	
Bihar and Orissa	Hazaribagh	1	9	1	Indian Mines Act, 1901, Sections 16 and 17.	Withdrawn.
	Manbhum	1	1	...	Section 20, Rule 5 of Notification No. 11798-103, dated 30th December 1908.	
	Do.	1	1	1	Ditto ditto.	
Bengal	Do.	1	1	...	Section 20, Rule 19 of Notification No. 864-68-20, dated 10th March 1904.	Acquitted.
	Burdwan	1	1	1	Ditto ditto.	
Bihar and Orissa	Manbhum	1	3	3	Indian Mines Act, 1901, Section 13 (1). Section 20, Rules 4 and 9 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 1914.

PROVINCE.	District.	Number of prosecutions.	Number of persons prosecuted.	Number convicted.	Numbers of rules and sections of the Act contravened.	REMARKS.
Bengal	Burdwan	1	1	1	Section 20, Rule 1 of Notification No. 11793-103, dated 30th December 1908.	
	Do.	1	1	1	Indian Mines Act, 1901, Section 13 (J). Section 20, Rules 1, 4 and 7 of Notification No. 864-68-20, dated 10th March 1904.	
	Do.	1	1	1	Section 20, Rule 19 of Notification No. 864-68-20, dated 10th March 1904.	
	Manbhum	1	4	4	Indian Mines Act, 1901, Section 13 (J).	
	Monghyr	1	2	1	Section 20, Rule 1 of Notification No. 11793-103, dated 30th December 1908.	One accused absconded.
Bihar and Orissa	Hazaribagh	1	1	1	Indian Mines Act, 1901, Section 16. Section 20, Rule 1 of Notification No. 11793-103, dated 30th December 1908.	
	Manbhum	1	1	1	Indian Mines Act, 1901, Section 13 (J).	
	Hazaribagh	1	1	1	Section 20, Rules 1 and 4 of Notification No. 11793-103, dated 30th December 1908.	
	Manbhum	1	1	1	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, and Rule 45 of Notification No. 2968-82, dated 21st April 1906.	
Bengal	Do.	1	2	2	Section 20, Rule 9 of Notification No. 864-68-20, dated 10th March 1904.	
	Burdwan	1	3	3	Section 20, Rules 1, 7 and 19 of Notification No. 864-68-20, dated 10th March 1904.	
Bihar and Orissa	Manbhum	1	3	3	Indian Mines Act, 1901, Section 13 (J). Section 20, Rules 3 and 7 of Notification No. 864-68-20, dated 10th March 1904.	
	Do.	1	1	...	Section 20, Rule 12 of Notification No. 864-68-20, dated 10th March 1904.	Not tried in 1914.
Bengal	Burdwan	1	1	1	Section 20, Rule 6 of Notification No. 864-68-20, dated 10th March 1904.	
	Manbhum	1	1	1	Section 20, Rule 12 of Notification No. 864-68-20, dated 10th March 1904.	
Bihar and Orissa	Do.	1	2	...	Section 20, Rules 2 (g), 7 and 8 of Notification No. 864-68-20, dated 10th March 1904.	Not tried in 1914.
	Do.	1	1	...	Section 20, Rule 12 of Notification No. 864-68-20, dated 10th March 1904.	Do.
Bengal	Burdwan	1	1	...	Section 20, Rule 19 of Notification No. 864-68-20, dated 10th March 1904. Section 20, Rule 8 of Notification No. 11793-103, dated 30th December 1908.	Do.

**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 Palaman.	(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 Sonthal 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.
Turnbull, John James . . . . .	180	26th January 1914 . . . . .	3929	8th September 1911.
Mark, William Stewart . . . . .	181	Ditto . . . . .	3066	14th June 1907.
Harrison, Joseph Richard . . . . .	182	Ditto . . . . .	3985	13th March 1912.
Le Mesurier, George James Brooke	183	16th February 1914 . . . . .	56	30th July 1913.
Fisher, Frank Horace . . . . .	184	Ditto . . . . .	3517	4th January 1910.
Aroher, Clement John . . . . .	185	16th July 1914 . . . . .	39	30th July 1913.
Oarr, William . . . . .	186	Ditto . . . . .	7	30th January 1913.
James, Edmund David . . . . .	187	Ditto . . . . .	4138	28th June 1912.
Shaw, John William . . . . .	188	Ditto . . . . .	3335	24th February 1909.
Murray, James . . . . .	189	Ditto . . . . .	3284	22nd December 1908.

SECOND CLASS.

Barron, George William . . . . .	20	28th March 1914 . . . . .	7506	21st July 1910.
Owen, Robert . . . . .	21	16th July 1914 . . . . .	7162	8rd September 1909.

APPENDIX IV—*contd.*

## MISCELLANEOUS.

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

## (b) Certificates of Competency.

## FIRST CLASS.

NAME.	No. of certificate.	Date of certificate.	REMARKS.
Kowar, Surendra Nath . . . . .	70	28th March 1914.	
Robertson, Andrew . . . . .	71	Ditto.	
Banerji, Gobinda Chandra . . . . .	72	Ditto.	
Mukherji, Mohini Mohan . . . . .	73	Ditto.	
Vanderbeck, Percy William . . . . .	74	Ditto.	
Dutt, Fanindra Krishna . . . . .	75	Ditto.	
Chatterji, Sudhir Mohan . . . . .	76	Ditto.	
Allen, Albert Edward . . . . .	77	Ditto.	

## SECOND CLASS.

Barrowman, Alexander . . . . .	90	28th March 1914.	
Ashcroft, Frederick Joshua . . . . .	91	Ditto.	
Banerji, Sambhu Nath . . . . .	92	Ditto.	
Ghosh, Hrishikesh . . . . .	93	Ditto.	
Roy, Harish Chandra . . . . .	94	Ditto.	
Bagchi, Beni Madhab . . . . .	95	Ditto.	
Sen, Sarat Chandra . . . . .	96	Ditto.	
Banerji, Bejoy Krishna . . . . .	97	Ditto.	
Das, Debendra Nath . . . . .	98	Ditto.	
Sahai, Kasi Nath . . . . .	99	Ditto.	
Sur, Aswini Kumar . . . . .	100	Ditto.	
Benbow, Peroival Sydney . . . . .	101	Ditto.	
Banerji, Jada Gopal . . . . .	102	Ditto.	
Hunter, Roger Joseph . . . . .	103	Ditto.	
Ghatak, Tara Sankar . . . . .	104	Ditto.	
Carapiet, Gregory George . . . . .	105	Ditto.	
Bhattacharji, Tara Pada . . . . .	106	Ditto.	
Sen Gupta, Jitendra Chandra . . . . .	107	Ditto.	
Mukherji, Dinesh Chandra . . . . .	108	Ditto.	
Rao, Harish Chandra . . . . .	109	Ditto.	

## (c) Certificate of Service.

## FIRST CLASS.

Chatterji, Kali Das . . . . .	137	26th March 1914.	
-------------------------------	-----	------------------	--

## SECOND CLASS.

Rowasankar, Tribhuban Dass . . . . .	189	26th January 1914.	
Mukherji, Niranjan . . . . .	190	18th July 1914.	



## APPENDIX IV—contd.

## MISCELLANEOUS.

## Statement No. 3.

List of Universities and Colleges in England and India 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.	25th September 1904.
Glasgow and West of Scotland Technical College in respect of its Diploma in Mining.	23th 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.	23th 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.

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 on the third Monday in 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 first day in 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 80; 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 age statement, as given on the Matriculation or B. Final certificates, is the only evidence 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 barrack accommodation and necessary arrangements for Europeans, Muhammadans and Hindus.

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

*Monthly—*

Tuition . . . . .	8	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. 6; Hindus, Rs. 2-8.
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 employes of the East India 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 an employe, 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.

## MINING COURSE (JUNIOR AND SENIOR YEARS)—

Ba.

Two scholarships of . . . . .	12	} carrying exemption from tuition fee unless the holder is also on the reduced fee or free list for candidates trained at Sibpur or at other schools in Bengal.
Three „ of . . . . .	6	

## 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.

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.

## APPENDIX IV—contd.

## MISCELLANEOUS.

## Statement No. 4—concl'd.

*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, lead 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 COAL-FIELDS.

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

<i>Place and time.</i>	<i>Lecturer.</i>
(1) Lecture-room near Sijua station, on Tuesdays at 5-30 P.M.	Mr. J. R. Harrison.
(2) Lecture-room near the Jharia Club, on Mondays at 5-30 P.M.	„ E. D. James.
(3) Lecture-room at Messrs. Apcar and Company's Charanpur Colliery, on Wednesdays at 5-30 P.M.	„ T. Gibson.
(4) Lecture-room near Dishargarh Club, on Mondays at 5-30 P.M.	„ W. R. Lascelles.
(5) Railway Institute, Raniganj, on Saturdays at 5-30 P.M.	„ J. Wilson, B.Sc.

The course of instruction, consisting of not less than 25 lectures, will commence the last week in October and end in the following May. An examination will be held on the first Monday in June 1915, 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. C. J. E. David, <i>Chairman.</i>	Mr. C. J. E. David, <i>Chairman.</i>
„ Glen George.	„ T. Samson.	„ P. S. Keelan.
„ J. Mackintosh.	„ R. Mitchell.	„ H. Piggford.
„ Geo. Millar.	„ E. M. Patterson.	„ W. J. Rees.
„ F. Owen.	„ A. Russell.	Babu Promotho Nath Hazra.
Babu M. N. Ray (Begunia).	Babu Atul Sasi Mitra.	„ Bejoy Krishna Banerji.
„ H. P. Mukherji (Chota Dhemo).	The Local Lecturer,	The Local Lecturer,
„ P. C. Tarafdar.	<i>Secretary.</i>	<i>Secretary.</i>
The Local Lecturer, <i>Secretary.</i>		

APPENDIX IV—*contd.*

## MISCELLANEOUS.

Statement No. 5—*contd.*

## JHARIA DISTRICT.

*Jharia Centre.*

The Chief Inspector of Mines,  
*Chairman.*

Mr. T. Adamson.  
" R. G. M. Bathgate.  
" R. J. Browne.  
" A. S. Thomson.  
Babu Bhupati Mukherji.  
Sita Nath Dutta.  
The Local Lecturer,  
*Secretary.*

*Sijua Centre.*

Mr. R. R. Simpson,  
*Chairman.*

" A. Agabeg.  
" E. S. Bennertz.  
" J. S. Kean.  
Babu Moti Lal Raba,  
The Local Lecturer,  
*Secretary.*

## 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 faults, 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 boring; choice of methods; cost of boring; winning coal by inclines, adits, shafts and cross-cuts.
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 Marsaut 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.

APPENDIX IV—*contd.*

## MISCELLANEOUS.

Statement No. 5—*concl'd.*SECOND-YEAR COURSE—*concl'd.*

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.

3. *Hauling.*—Tramways, tubs and waggons ; conveyance by self-acting inclines ; single-rope haulage ; main and tail ; endless rope ; endless chain ; calculations 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. Heap-steads ; 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,

(*Off. Supt. of Industries, etc.*),

Secretary to the Mining Educational Advisory Board,  
Writers' Buildings, Calcutta.

## Statement No. 6.

No. 8818—1.

## DEPARTMENT OF COMMERCE AND INDUSTRY.

## NOTIFICATION.

## GEOLOGY AND MINERALS.

*Simla, the 5th September 1914.*

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:—

Rules 36 and 37 and the words "Notwithstanding anything in rule 36 or 37" in rule 38 shall be cancelled.

R. E. ENTHOVEN,

Secretary to the Government of India.

No. 8814—8830—1.

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

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

By order, etc.,

S. H. SLATER,

Under-Secretary to the Government of India.

APPENDIX IV—*concl'd.*  
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.



CALCUTTA  
SUPERINTENDENT GOVERNMENT PRINTING, INDIA  
8, HASTINGS STREET