

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

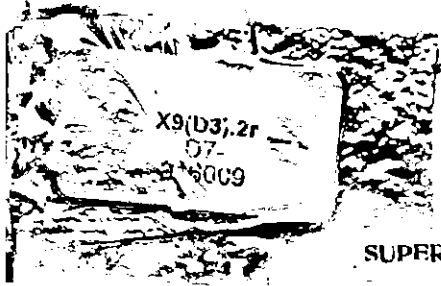
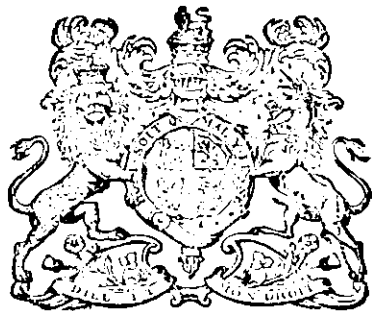
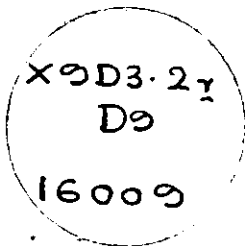
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BY

J. R. R. WILSON, M. I. C. E., F. G. S.

Chief Inspector of Mines in India

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SUPERINTENDENT GOVERNMENT PRINTING, INDIA

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APPENDIX I.

Fatal Accidents, 1909. *

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age, and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
EXPLOSIONS OF FIRE-DAMP—(6 deaths).						
1	9th May, 4-45 A.M.	Sitalpur Mine, Dishargarh P. O.	Bengal Coal Co., Ltd.	Kangal Bauri, (m.), 30, <i>Miner.</i>	Coal	The deceased and another were warned not to enter a certain main gallery on account of gas. They took no notice however, and entering the gallery with a naked light fired the gas and were so severely burnt that Kangal died next day. <i>See Report, page 4.</i> Inspection and inquiry made.
2	12th June, 4 A.M.	Tikak Mine, Margherita P. O.	Assam Railways and Trading Co., Ltd.	Baijnath, (m.), 34, Domon, (m.), 37, <i>Bhoskawallas.</i> Felu, (m.), 29, Boron, (m.), 38, <i>Sirdars.</i>	Coal	A dam which stopped off a fire in the old goaf had been burnt out and smoke was noticed in the workings. They were endeavouring to find out from where the smoke was coming, when an explosion occurred from the effects of which these three men subsequently died. <i>See Report, page 4.</i> Inspection and inquiry made.
3	30th December, 9-30 A.M.	Chota Dhemu Mine, Dishargarh P. O.	Baman Dass Mukherji	Chandi Majhi, (m.), 25, <i>Coal-cutter.</i>	Coal	In a mine in which gas had not been found during the last 8 years he entered a gallery that had been standing 12 hours with a naked light and fired an accumulation of gas. He was burnt severely and died on the 7th January 1910. <i>See Report, page 5.</i> Inspection and inquiry made.
FALLS OF ROOF AND SIDES—(57 deaths).						
(a) Falls of roof—(31 deaths).						
4	7th February, 11-30 P.M.	Jamgram Mine, Panuria P. O.	Barakar Coal Co., Ltd.	Majha Majhi, (m.), 30, <i>Coal-cutter.</i>	Coal	He was one of a gang widening galleries and whilst cutting at a corner of a pillar a fall of roof took place and he was killed on the spot. <i>See Report, page 5.</i> Inspection and inquiry made.
5	11th February, 1-30 P.M.	Damudapur Mine, Nandi P. O.	Bengal Coal Co., Ltd.	Toja Chamar, (m.), 38, <i>Coal-cutter.</i>	Coal	He went beyond a fence and while filling loose coal several tons of coal fell and killed him on the spot. Inspection and inquiry made.
6	15th February, 12 Noon.	Kendwadih Mine, Kusunda P. O.	East Indian Coal Co., Ltd.	Karru Roy, (m.), 24, <i>Miner.</i>	Coal	Killed by a fall of coal from the roof and side while cutting roof coal. Inspection and inquiry made.
7	2nd March, 3 A.M.	Tikak Mine, Margherita P. O.	Assam Railways and Trading Co., Ltd.	Tiru Gore, (m.), 32, <i>Basket-filler.</i>	Coal	The deceased was dragging baskets when some coal fell on him and injured him so seriously that he died the same day. Inspection and inquiry made.
8	18th March, 2-30 P.M.	Bhatdih Mine, Mohoda P. O.	Bengal Bhatdih Coal Co., Ltd.	Gangadin Rai, (m.), 33, <i>Miner.</i>	Coal	He was cutting floor coal when a piece of roof, 7' 6" x 3' x 10", fell on him killing him instantaneously. Inspection and inquiry made.

APPENDIX I—*contd.*

Fatal Accidents, 1909—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age, and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—<i>contd.</i>						
(a) Falls of roof—<i>concl'd.</i>						
9	23rd March, 3 P.M.	Nayectaur Mine, Tisri P. O.	Bhagwan Das Marwari .	Nazir Kalal, (m.), 30, <i>Miner.</i>	Mica	Killed by a fall of roof.
10	11th April, 1 P.M.	Square No. 31-J Mine, Kodarma P. O.	Bengal Mica Syndicate	Khedon Ghatwar, (m.), 25, <i>Coolie.</i>	Mica	While filling away fallen material from the mouth of an inclined shaft about 80 lbs. weight of schist fell from the roof upon his head and killed him instantly. Inspection and inquiry made.
11	1st May, 9 A.M.	Pipratand Mine, Katrasgarh P. O.	Pipratand Coal Co., Ld.	Sugia Majhain, (f.), 26, <i>Coal-carrier.</i>	Coal	She and another woman were filling baskets of coal previously ripped from the roof when about 1½ tons of coal fell on them. Sugia died that night, the other escaped with slight injuries. Inspection and inquiry made.
12	8th May, 1 P.M.	Joba Mine, Raniganj P. O.	Eastern Coal Co., Ld.	Kalka Kori, (m.), 33, <i>Coal-cutter.</i>	Coal	He returned to his gallery after blasting before the smoke had cleared away, and began to knock down overhanging coal. He was struck by the fall of a mass of coal loosened by the blast and was killed on the spot. Inspection and inquiry made.
13	8th May, 7-15 A.M.	Tikak Mine, Margherita P. O.	Assam Railways and Trading Co., Ld.	Dollu Kosta, (m.), 32, <i>Basket-filler.</i>	Coal	A fall took place while he was filling coal burying him. He was dead when got out. Inspection and inquiry made.
14	12th May, 8 A.M.	Dhobidih Mine, Giridih P. O.	Bengal Giridih Coal Co., Ld.	Punia Majhi, (m.), 45, Leboa Kole, (m.), 30, Sanoa Kole, (m.), 35, Rewa Meah, (m.), 60, <i>Miners.</i>	Coal	They were preparing to start work in the head end of a gallery when roof stone measuring 20' x 9' x 5½' fell from between two inclined slips and killed all the men outright. <i>See Report, page 5.</i> Inspection and inquiry made.
15	14th May, 4 P.M.	Akhalpur Mine, Nandi P. O.	Hariladiah Coal Co., Ld.	Budhi Majhain, (f.), 30, <i>Coolie.</i>	Coal	A miner was wedging down roof coal from a height of about 10 feet. She was sitting below and thought she was clear, but a small piece of coal struck her on the knee and fractured the joint. She received proper medical attention, but her relatives insisted on using their own dressings and she died from blood poisoning eleven days later. Inspection and inquiry made.
16	29th May, 5 A.M.	Dandot Mine, Dandot P. O.	North Western Rail- way.	Khuda Bux, (m.), 30, <i>Carpenter.</i>	Coal	During cogging operations at a "fall" a piece of stone fell from the roof upon the victim's leg and broke it. Traumatic fever supervened and he died five days later. <i>See Report, page 6.</i> Inspection and inquiry made.
17	30th May, 8 A.M.	Sodepur Mine, Sitarampur P. O.	Bengal Coal Co., Ld.	Hari Ram Mohora, (m.), 40, <i>Head Sirdar.</i>	Coal	Seven persons, including the day and night shifts sirdars, were engaged withdrawing timber from a newly made goaf when the roof fell and buried them all. The roof had been weighting for some hours previously; but this only made them work harder to try to get the timber out before it fell. <i>See Report, page 6.</i> Inspection and inquiry made.

				Dukhun Burhi, (m.), 38, <i>Sirdar.</i> Khuju Meah, (m.), 36, Tulu Meah, (m.), 35, Jugal Burhi, (m.), 38, <i>Propping mistries.</i> Talu Koiri, (m.), 17, Kangali Meah, (m.), 37, <i>Propping coolies.</i>		
18	1st June, 1 A.M.	Sanctoria Mine, Dishargarh P. O.	Bengal Coal Co., Ld.	Hiru Turi, (m.), 40, <i>Miner.</i>	Coal	He went under a canch of roof coal that he was cutting, to break a large piece of coal he had just cut down, when another piece of coal fell off the canch between two cleat faces and caught him on the back. He was injured so seriously that he died three hours later. Inspection and inquiry made.
19	6th June, 5-30 A.M.	Angarpatra Mine, Katrasgarh P. O.	Union Coal Co., Ld.	Kinu Rai, (m.), 35, <i>Miner.</i>	Coal	He was trimming off the side of a gallery which had joined another, when a piece of coal 7' x 1' 4" x 2' 5", fell on him from a height of six feet and killed him instantaneously. Inspection and inquiry made.
20	18th August, 1-30 P.M.	Brahmanbarari Mine, Jharia P. O.	East Indian Coal Co., Ld.	Jarni Kurmi, (m.), 36, <i>Coal-cutter.</i>	Coal	A shot had been fired to blow down a pillar and a piece of coal 10' x 10' x 2' was left in the roof. The place was then fenced off. Two hours later this coal began to work, and the sirdar shouted to every one to stand back. Deceased however ran under the fence and was caught by a piece of the coal as it fell. Inspection and inquiry made.
21	3rd September, 2 P.M.	West Ledo Valley Mine, Margherita P. O.	Assam Railways and Trading Co., Ld.	Choramon Ghatwal, (m.), 27, <i>Basket-filler.</i>	Coal	About 12 cwts. of earth fell from the roof on to him while trying to escape on the warning of a subordinate official. He was dead when his body was recovered. Inspection and inquiry made.
22	4th September, 2-30 A.M.	Panchgatchia Mine, Sitarampur P. O.	Lutchipur Coal Co., Ld.	Gopi Majhi, (m.), 32, <i>Miner.</i>	Coal	Deceased contrary to regulations entered some old workings to get a few baskets of coal to complete his tub. Premonitory symptoms of a fall warned him, but he refused to take any notice and the roof fell and buried him. Inspection and inquiry made.
23	9th October, 5 A.M.	Sudih Mine, Sitarampur P. O.	Baraboni Coal Concern, Ld.	Charan Majhi, (m.), 22, <i>Coal-cutter.</i>	Coal	He broke down a fence and entered a gallery that had been stopped the day previous on account of bad roof. After cutting some coal he heard a piece of stone fall and put up his pick to test the roof when a large area of stone fell and struck his pick and drove it into his side. He died three hours later. Inspection and inquiry made.
24	11th November, 3 P.M.	Bamanband Mine, Chowkidanga P. O.	Bamanband Coal Co., Ld.	Idhan Sheik, (m.), 20, <i>Main heading driver.</i>	Coal	He was killed by a fall of shale roof, 2' 6" in thickness. Inspection and inquiry made.
25	2nd December, 3-30 P.M.	Serampur Mine, Giridih P. O.	East Indian Railway Co.	Jainath Dosadh, (m.), 30, <i>Coal-cutter.</i>	Coal	He entered a fenced place to cut coal and was caught by the Deputy Overman and turned out. Soon after this he returned and commenced to cut one of the "nobs" supporting a "fall" of coal when the roof fell and buried him. Inspection and inquiry made.
			(b) Falls of side—(26 deaths).			
26	14th January, 2 P.M.	New Kesalpur Mine, Katrasgarh P. O.	Bepin Behari Banerji	Narain Rajvar, (m.), 35, <i>Miner.</i>	Coal	He left his proper working place, crossed a fence, and commenced to cut coal in a disused gallery, when a piece of coal fell upon him from a height of 6 feet and fractured his skull. He died in two hours. Inspection and inquiry made.

APPENDIX I—contd.

Fatal Accidents, 1909—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner	Name, sex, age, and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES —concl'd.						
(b) Falls of side—concl'd.						
27	16th January, Noon.	Solepur Mine, Sitarampur P. O.	Bengal Coal Co., Ld.	Pano Bauri, (m.), 44, <i>Miner.</i>	Coal	Deceased wandered into a disused, but unfenced part of a quarry and commenced to cut coal. Apparently he had been at work a few minutes only when the side collapsed and buried him. Inspection and inquiry made.
28	16th January, 2-30 P.M.	Bhalgora Mine, Jharia P. O.	Bhalgora Coal Co., Ld.	Sham Lal Kahar, (m.), 36, <i>Miner.</i>	Coal	The deceased and another miner left the pillar which they and others were systematically getting and went to another which had been partially got, when about a ton of coal fell from a height of 9 feet killing Sham and injuring his companion. Inspection and inquiry made.
29	22nd February, 11 A.M.	Benahir Mine, Jharia P. O.	Standard Coal Co., Ld.	Nilmoni Majhain, (f.), 14, <i>Coal-carrier.</i>	Coal	A heavy piece of coal became detached from a back slip in a pillar and fell upon her killing her outright. It is not clear whether she was walking past the place, or whether miners were robbing the pillar. Inspection and inquiry made.
30	23rd February, 8 A.M.	Gopalichak Mine, Jharia P. O.	Gopalichak Coal Co., Ld.	Budhu Meah, (m.), 25, <i>Miner.</i>	Coal	Whilst robbing a pillar a piece of coal, 10' x 4' x 3' 6" to 0", suddenly fell on the deceased and killed him instantaneously. Inspection and inquiry made.
31	26th February, 6 P.M.	Bamankua Mine, Shivrajpur P. O.	Bamankua Manganese Co., Ld.	Bhani Tey Singh, (m.), 30, <i>Coolie.</i>	Manganese	He and three others were illegally working at a face which had become unsafe when part of it crumbled down and a large quantity of overburden fell and buried them all. Bhani died in a few hours. Inspection and inquiry made.
32	3rd March, 10 A.M.	East Ledo Valley Mine, Margherita P. O.	Assam Railways and Trading Co., Ld.	Sona, (m.), 32, <i>Opening man.</i>	Coal	He was pulling coal when about two tubs of coal rolled from the side about 4 feet high and hit him on the forehead. He died from the effects on the 8th March. Inspection and inquiry made.
33	3rd March, 3 P.M.	Muttigurra Mine, Nowagarh P. O.	Muttigurra Coal Co., Ld.	Gangla Beldarin, (f.), 37, <i>Coal-carrier.</i>	Coal	Her body was found inside a fence near a large piece of coal which had fallen from the side of a quarry. She had probably crossed the fence to pick up coal when the fall took place and killed her. Inspection and inquiry made.
34	17th April, 12-10 P.M.	Murulidih Mine, Mohoda P. O.	Bengal Coal Co., Ld.	Bhobani Gowalla, (m.), 21, <i>Timbering coolie.</i>	Coal	He was apparently illegally getting coal at a pillar, when a piece fell from the corner and dropped upon him inflicting such injuries that he died before removal from the mine. Inspection and inquiry made.
35	1st May, 4 P.M.	Lagunwa Mine, Kodarma P. O.	Dickson Irwin (Kodarma) Mica Mining Syndicate, Ld.	Bhola Singh, (m.), 30, <i>Miner.</i>	Mica	A piece of mica schist fell from the hanging wall of a drift driven in the pegmatite vein, struck the deceased on the back and pushed him on to a projecting piece of rock which entered his groin to a depth of two inches. He died shortly afterwards from the effects of the injuries. Inspection and inquiry made.
36	11th June, 2-30 A.M.	Tikak Mine, Margherita P. O.	Assam Railways and Trading Co., Ld.	Rohon, (f.), 22, <i>Basket-carrier.</i>	Coal	Whilst she was carrying a basket of coal, a piece of side weighing about 3 cwts. fell striking her on the back and injuring her spine. She died from the effects of the injuries on the 8th September. Inspection and inquiry made.

37	11th June, 9 A.M.	North Kustore Mine, Kusunda P. O.	Kusunda and Nayadi Collieries, Ld.	Nanku Gope, (m.), 40, <i>Stone-cutter.</i>	Coal	A sirdar noticing a loose piece of coal told him to bring a pick. As he brought it he was told to keep to the left-hand side. He remarked that it seemed all right and came in on the right hand side when a piece of coal 3' x 3' x 8" fell on him and injured his head. He died a few minutes later. Inspection and inquiry made.
38	24th June, 11 A.M.	Square 24-M Mine, Kodarma P. O.	East Indian Mica Min- ing Co., Ld.	Punta Gope, (m.), 16, Koro Singh, (m.), 20, <i>Miners.</i>	Mica	The two men were following the vein and had gone 7 feet deep when a piece of the overburden fell and buried them. Punta was killed on the spot and Koro died on the 3rd July. Inspection and inquiry made.
39	28th June, 11-30 P.M.	Salampur Mine, Sitarampur P. O.	Borrea Coal Co., Ld.	Matla Manjhi, (m.), 22, <i>Coal-cutter.</i>	Coal	Whilst robbing a pillar in disused workings, a column of coal fell from the side and injured the deceased who died 34 hours later from the effects of the injuries. Inspection and inquiry made.
40	4th July, 3 P.M.	Darabzangi Mine, Quetta P. O.	Baluchistan Mining Syndicate, Ld.	Haste, (m.), 35, <i>Coolie.</i>	Chromite	While he was digging on the side of the quarry, a boulder fell on his back injuring him so seriously that he died an hour later.
41	5th July, 4 P.M.	Bujwa Mine, Kodarma P. O.	Floyd Brothers	Thalu Kabhar, (m.), 20, <i>Miner.</i> Tini Mesh, (m.), 15, <i>Coolie.</i>	Mica	While working near the entrance to an old mine, some 100 cubic feet of earth fell from the side and buried them. Inspection and inquiry made.
42	22nd July, 7 P.M.	Serampur Mine, Giridih P. O.	East Indian Railway Co.	Rit Lal Roy, (m.), 25, <i>Miner.</i>	Coal	A piece of coal, loosened by a sudden goaf weight, fell upon him just as he was trying to escape the effects of the weight. He died shortly after from the effects of his injuries. Inspection and inquiry made.
43	22nd July, 7-30 P.M.	Tikak Mine, Margherita P. O.	Assam Railways and Trading Co., Ld.	Budhon, (m.), 31, <i>Basket-filler.</i>	Coal	He was filling a basket when about 4 or 5 tons of side fell burying him completely and suffocating him. Inspection and inquiry made.
44	24th July, 8-15 A.M.	Bansdeopur Mine, Kusunda P. O.	Bansdeopur Coal Co.	Sagram Manjhi, (m.), 22, <i>Coal-cutter.</i>	Coal	Fifteen tons of coal fell off the corner of a pillar on to him and two others, killing him and slightly injuring the others. Inspection and inquiry made.
45	10th September, 2-30 P.M.	Raniganj Mine, Raniganj P. O.	Bengal Coal Co., Ld.	Chandra Baurini, (f.), 45, <i>Dust-loader.</i>	Coal	She was one of a gang of sixteen women employed in picking up loose coal in an area of abandoned pillars where a slow creep was in progress. About half a ton of coal fell from a pillar and crushed her so severely that she died the same day. Inspection and inquiry made.
46	18th September, 9-50 A.M.	Sutikdih Mine, Bhujudih P. O.	Sutikdih Coal Co., Ld.	Khenti Baurini, (f.), 26, Kodi Baurini, (f.), 24, <i>Coal-carriers.</i>	Coal	They were carrying coal for two miners who left their proper working places to go to a corner of a pillar. While one of the miners was cutting at the lower portion of the corner about one ton of coal fell off the top portion on to the two women, killing one instantaneously and injuring the other so severely that she died at 2 P.M. Inspection and inquiry made.
47	15th October, 2-30 P.M.	Salampur Mine, Sitarampur P. O.	Borrea Coal Co., Ld.	Tiku Singh, (m.), 30, <i>Propping mistry.</i>	Coal	While deceased was withdrawing a stretcher bar against orders, a piece of coal fell from the side upon his head and fractured his skull killing him outright. Inspection and inquiry made.
48	20th December, 12-30 A.M.	Bulliar Mine, Jharia P. O.	East Indian Coal Co., Ld.	Shovan Hazam, (m.), 30, <i>Miner.</i>	Coal	While filling out slack coal, he went beyond a fence and while there a slab of coal, about $\frac{1}{2}$ cwt., fell from the side of a pillar and struck him, killing him on the spot. Inspection and inquiry made.

APPENDIX I—contd.

Fatal Accidents, 1909—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age, and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
IN SHAFTS—(30 deaths).						
Overwinding—(1 death).						
49	8th November, 10-20 P.M.	Burra Dhemu Mine, Sitarampur P. O.	Damuda Coal Co., Ltd.	Kanhu Majhi, (m.), 30, Stone-cutter.	Coal	Overwind of a hoppit containing four sinkers occurred at a sinking shaft 201 feet deep. The apparatus was fitted with a detaching hook, but before it had time to come into operation the deceased jumped from the bucket obviously with the intention of springing upon the banking level and, misjudging his distance, fell to the bottom of the shaft and fractured his skull. The other three were saved. See Report, page 7. Inspection and inquiry made.
Ropes and chains breaking—(2 deaths).						
50	20th April, 5 A.M.	North Anantapur Mine, Morrison P. O.	North Anantapur Gold Mines, Ltd.	Mallapah, (m.), 35, Maboob Khan, (m.), 25, Coolies.	Gold	Whilst hauling stuff in a shaft, the pin of the shackle which connected the winding rope and skip snapped, and the skip dropped to the bottom on them. Mallapah was killed outright and the other succumbed later. Inspection and inquiry made.
Whilst ascending and descending by machinery—(7 deaths).						
51	15th January, 7-30 P.M.	North Anantapur Mine, Morrison P. O.	North Anantapur Gold Mines, Ltd.	K. Ramaswami, (m.), 22, Rock-loader.	Gold	Instead of going to the surface by the shaft ladders, he jumped into the skip and gave the signal for rock raising. The engineman after raising about 20 feet felt a jerk and stopped the skip. Deceased was found dead in the bottom of the skip with his head fractured. Inspection and inquiry made.
52	21st January, 6-30 A.M.	Bhuskajuri Mine, Asansol P. O.	Bhuskajuri Coal Co., Ltd.	Ganpat Khoira, (m.), 26, Coal-cutter.	Coal	He fell out of a descending cage and was killed on the spot. The cage was fitted with a guard chain at each end, but it is probable that the banksman neglected to fasten them. Inspection and inquiry made.
53	27th May, 7-30 P.M.	Kendwadih Mine, Jharia P. O.	Hariladih Coal Co., Ltd.	Agho Kole, (m.), 33, Miner.	Coal	He got upon a cage as it was being raised from the pit bottom, and failing to secure a hold fell back upon his head, and sustained a fracture of the skull. He died a few hours later. Inspection and inquiry made.
54	30th June, 8 A.M.	Gopalichak Mine, Jharia P. O.	Gopalichak Coal Co., Ltd.	Khagu Dome, (m.), 36, Sinkers' sirdar.	Coal	He got into a bucket at a landing and the signal was given to lower. Instead of being lowered he was wound to the top of the pit, which is out of use, the sinking being conducted from the landing. He struck a beam at the pit top and was found dead in the bucket. Inspection and inquiry made.
55	16th July, 9-30 P.M.	Kustore Mine, Kusunda P. O.	Raniganj Coal Association, Ltd.	Tilakdhary Keot, (m.), 40, Miner.	Coal	While ascending a shaft and within about 4 feet of the surface he fell out of the cage and dropped to the bottom of the shaft, 280 feet below, and was killed instantly. Inspection and inquiry made.

56	21st October, 1-30 A.M.	Lutchipur Mine, Sitarampur P. O.	Damuda Coal Co., Ld.	Mora Kole, (m.), 25, Onsetter.	Coal	While descending a shaft with two companions deceased fell out of the cage and was killed. There is a suspicion that he had been drinking and this probably made him an easy victim of unconsciousness owing to the intense heat that prevailed in the shaft by reason of exhaust steam. See Report, page 8. Inspection and inquiry made.
57	20th November, 8-30 A.M.	Bhutgoria Mine, Jharia P. O.	Aldih Coal Co., Ld.	Dhuk Lal Gope, (m.), 15, Stone-remover.	Coal	While descending a shaft alone in a cage he for some unknown reason fell out when about 20 feet from the bottom and fractured his skull. He died on the following day. Inspection and inquiry made.
Falling into the shaft from the surface—(1 death).						
58	21st April, 10-30 P.M.	Anantapur Mine, Morriston P. O.	Anantapur Gold Field, Ld.	Woddar Gangadu, (m.), 30, Coolie.	Gold	He was employed as a lander at the top of a trial shaft. After emptying the bucket he stepped backwards and by some means fell to the bottom. He died a few hours later. Inspection and inquiry made.
Falling from part of the way down—(11 deaths).						
59	5th June, 12-30 P.M.	South Jibutil Mine, Morriston P. O.	Nundydroog Co., Ld.	Karimbauakkal Rahman, (m.), 20, Handjumper coolie.	Gold	Slipped and fell on his head whilst climbing up a chain ladder from the bottom of a winze. He died about half an hour later. Inspection and inquiry made.
60	14th June, 10 P.M.	South Jibutil Mine, Morriston P. O.	Nundydroog Co., Ld.	Namathala Chinnavadu, (m.), 27, Windlass coolie.	Gold	He was working at a windlass by which water was being raised from a winze. Whilst sending the bucket away his foot slipped and he fell to the bottom of the winze—a distance of 38 feet. He sustained a fracture of the skull and died shortly after. Inspection and inquiry made.
61	27th June, 8 A.M.	Bhatdih Mine, Mohoda P. O.	Bengal Bhatdih Coal Co., Ld.	Chaman Gope, (m.), 24, Stone-cutter.	Coal	While sitting upon the top of a cage examining the shaft sides he lost his balance and fell 116 feet to the bottom, being killed instantly. Inspection and inquiry made.
62	3rd July, 2 P.M.	Surataur Sonalabad Mine, Jharia P. O.	Lachmi Narayan Agar- wala.	Kanta Prosad Panday, (m.), 25, Chaprassi.	Coal	Fell from some unknown cause to the bottom of a pit whilst being lowered and was killed on the spot. Inspection and inquiry made.
63	5th July, 11-30 A.M.	Sodepur Mine, Dishargarh P. O.	Bengal Coal Co., Ld.	Mohabir Bhuia, (m.), 13, Pump-khalassi. Banamali Bauri, (m.), 20, House servant. Kirti Bauri, (m.), 25, Haulage signalman. Anantu Bauri, (m.), 25, Onsetter. Dhana Ghatwar, (m.), 26, Surface banksman.	Coal	A descending cage containing five men and an ascending cage containing one man collided with each other in the shaft. Four men from the former and the only occupant of the latter were thrown out and fell to the bottom of the shaft. See Report, page 9. Inspection and inquiry made.
64	12th September, 7 A.M.	Alkusa Mine, Kusunda P. O.	Raniganj Coal Associa- tion, Ld.	Dhakal Roy, (m.), 26, Kebal Meah, (m.), 20, Sinkers.	Coal	They were examining the sides of a shaft after firing, standing in a bucket, 53 feet from the surface. One of them must have accidentally struck out the locking pin of the bucket, which turned over, and they fell 55 feet to the bottom of the shaft. See Report, page 10. Inspection and inquiry made.

APPENDIX I - contd.

Fatal Accidents, 1909—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age, and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
IN SHAFTS—concl'd.						
Things falling from the surface -- 2 deaths.						
65	19th August, 8-30 P.M.	Industry Mine, Dhanbaid P. O.	Industry Coal Co., Ltd.	Jagon Meah (m.), 16, Onsetter.	Coal	While working at the bottom of a shaft an empty tub fell from the surface on him killing him instantly. See Report, page 10. Inspection and inquiry made.
66	11th November, 6-15 P.M.	Alkusa Mine, Kusunda P. O.	Raniganj Coal Association, Ltd.	Hira Dhaikar, (m.), 22, Hookman.	Coal	A rail supporting a hook upon a frame on a sinking trolley was not fastened. As the sinking bucket was being raised it caught the rail and lifted it off the uprights. The rail then fell down the shaft and killed the hooker-on. See Report, page 10. Inspection and inquiry made.
Things falling from part of the way down—(2 deaths).						
67	9th January, 7 P.M.	Hosur Mine, Hosur Mines P. O.	Hosur Gold Mines of Dharwar.	Sanjivi, (m.), 35, Water-bailer.	Gold	The key came out of the shaft of the reversing lever and the engine got out of control. The skip fell to the bottom and killed the deceased who was bailing water. Inspection and inquiry made.
68	1st May, 10-30 A.M.	Jairandanga Mine, Asansol P.O.	New Beerbhun Coal Co., Ltd.	Girish Singh, (m.), 22, Sinker.	Coal	A small piece of stone fell from the side of a shaft and struck him. He died the following day. Inspection and inquiry made.
Miscellaneous—(1 death).						
69	8th March, 1-15 P.M.	Hosur Mine, Hosur Mines P. O.	Hosur Gold Mines of Dharwar, Ltd.	Cowthell Bhima, (m.), 24, Lutchu Ram, (m.), 33, Sinkers.	Gold	They were struck by a skip which ran amain down the shaft. Inspection and inquiry made.
70	23rd March, Midnight.	Kabulgitti Mine, Kabulgitti P. O.	Dharwar Reefs Gold Mining Co., Ltd.	Nabi Saib, (m.), 20, Shaft-sinker.	Gold	He was employed in the bottom of a shaft and climbed to a point about 25 feet above the bottom where he went to sleep on the timbers. The descending skip ran over his leg injuring him so severely that he died from the effects two days later. Inspection and inquiry made.
71	30th November, 2-30 P.M.	South Jibutal Mine, Morriston P. O.	Nundydroog Co., Ltd.	Valu, (m.), 25, Handjumper coolie.	Gold	He was standing in a skip at a shaft bottom and helping his mates to load planks. Whilst doing so they shouted "Lift," the ringer at the 250 feet level, about 15 feet above, took this for a signal to ring away the skip. He gave the signal and the skip was raised. Valu was thus carried up and his head was jammed between the skip and the timbering at the level. He was killed on the spot. Inspection and inquiry made.

BY EXPLOSIVES—(5 deaths).						
72	19th February, 6 A.M.	Hosur Mine, Hosur Mines P. O.	Hosur Gold Mines of Dharwar, Ld.	Donappa, (m.), 35, <i>Rock-loader.</i>	Gold	He was clearing rock from the bottom of a winze when he is stated to have been struck by a piece of rock which burst off with explosive force. It is not unlikely that the man was dressing the floor with a pick and detonated some explosive which had been left unexploded after the preceding round of holes were fired. Inspection and inquiry made.
73	20th February P.M.	Bazui Mine, Pench Valley P. O.	Pench Valley Coal Co., Ld.	Gazru Singh, (m.), 40, <i>Miner.</i>	Coal	He forcibly abstracted gunpowder cartridges from a bag carried by a shot firer's boy. These ignited by his lamp and exploded. He was so seriously burnt that he died a few days later. Inspection and inquiry made.
74	29th March, 11-30 P.M.	Chandametta Mine, Pench Valley P. O.	Pench Valley Coal Co., Ld.	Mazar Ali Khan, (m.), 40, <i>Coal-cutter.</i>	Coal	He was sitting on the headways about 30 feet from the point where a bord was on the point of holing. A shot was fired in the bord and the flying coal struck him. He died a few hours later. Inspection and inquiry made.
75	20th June, 8 A.M.	Choitodih Mine, Katrasgarh P. O.	Lutchipur Coal Co., Ld.	Bhagu Singh, (m.), 25, <i>Pit-sinker.</i>	Coal	Whilst withdrawing a detonator from a misfired charge of dynamite, the shot exploded and killed him on the spot. Inspection and inquiry made.
76	6th July, 5-20 P.M.	Kabulgitti Mine, Kabulgitti P. O.	Dharwar Reefs Gold Mining Co., Ld.	Gopal Nayar, (m.), 22, <i>Blaster.</i>	Gold	He and a maistry were blasting. After lighting nine holes they signalled to be hoisted up and just as they were starting three of the holes exploded prematurely injuring them. Gopal died from the effects of the injuries received. Inspection and inquiry made.
IRRUPTIONS OF WATER OR FALLING INTO WATER—(3 deaths).						
77	14th June, 11 A.M.	West Gopalichak Mine, Kusunda P. O.	Gopalichak Coal Co., Ld.	Jogeshwar Dhikar, (m.), 40, <i>Pump-khalassi.</i>	Coal	While attending to a pump in a pit bottom he lost his light, and although he had matches in his pocket he attempted to come away in the dark and stumbled headlong into the sump into which the pump exhausted. He was scalded so badly that he died within twenty-four hours. Inspection and inquiry made.
78	1st August, 9 P.M.	Dandot Mine, Dandot P. O.	North Western Railway	Star Mahomed, (m.), 18, <i>Coolie.</i>	Coal	While attempting to turn the cock of a syphon the deceased fell into the water and was drowned. Inspection and inquiry made.
79	27th October, 3-30 P.M.	Saltore Mine, Dishargarh P. O.	Saltore Coal Co., Ld.	Babu Lal Sheik, (m.), 29, <i>Pump-khalassi.</i>	Coal	Evidently fell into the sump when getting into the bucket to come up the pit.
HAULAGE—(16 deaths).						
80	21st January, 5-30 P.M.	Takmi Mine, Khost Colliery, Khost P. O.	North Western Railway	Jangira Mal, (m.), 25, <i>Contractor's munshi.</i>	Coal	At a sudden change in the grade of the haulage dip the victim, a contractor's official, who was seated on the coupling chains of the tub next to the rope, was unseated and fell headlong to the bottom of the dip. Death was instantaneous. Inspection and inquiry made.
81	17th February, 9 A.M.	Borrea Mine, Sitarampur P. O.	New Beerbhum Coal Co., Ld.	Kalyan Majhi, (m.), 20, <i>Miner.</i>	Coal	Deceased was twisting a loaded tub on a flat sheet at the bottom of a steep road when another tub, whose sprag had broken, dashed into it and caught his leg between the buffers. He died the same day from the effects of the injury. Inspection and inquiry made.
82	26th February, 9 A.M.	Sanctoria Mine, Dishargarh P. O.	Bengal Coal Co., Ld.	Sambhu Koira, (m.), 22, <i>Miner.</i>	Coal	A set of empties was descending an incline when it met a displaced friction pulley frame which released the leading tub and it ran amain dashing into the deceased and injuring him. He died from the effects five days later. Inspection and inquiry made.

APPENDIX I—contd.

Fatal Accidents, 1909—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age, and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
HAULAGE—concl'd.						
83	26th February, 10 A.M.	Central Kurkend Mine, Kusunda P. O.	Central Kurkend Coal Co., Ld.	Maharo Turi, (m.), 35, <i>Timber coolie.</i>	Coal	As eight tubs were being drawn up an incline, the coupling between the first and second tubs broke and seven tubs ran wild, injuring the deceased, through the effects of which he died on the 5th March. Inspection and inquiry made.
84	12th March, 11-30 A.M.	Bhulanbarari Mine, Jharia P. O.	Bhulanbarari Coal Co., Ld.	Shihoyal Singh, (m.), 35, <i>Contractor's overseer.</i>	Coal	While waiting for empty tubs being shunted, a train of twenty-four tubs became detached from the rope and ran into him, killing him instantly. Inspection and inquiry made.
85	17th March, 9-30 P.M.	Ganzlatan Mine, Katrasgarh P. O.	New Manbhum Coal Co., Ld.	Bison Gope, (m.), 45, <i>Hookman.</i>	Coal	As a journey of five empty tubs was being lowered, the coupling broke and two tubs ran wild over deceased, injuring him so seriously that he died next day. Inspection and inquiry made.
86	19th March, 7-30 A.M.	Dheriajoba Mine, Kusunda P. O.	Jharia Coal Syndicate, Ld.	Sovan Kahar, (m.), 25, <i>Hookman.</i>	Coal	While a set of empty tubs was being lowered, Sovan attempted to get on one of the tubs and was knocked down. He was injured so seriously that he died a few days later.
87	8th June, 6-30 A.M.	Garbbam Mine, Chipurupalli P. O.	Vizianagram Mining Co., Ld.	Woopada Poli, (f.), 40, <i>Coolie.</i>	Manganese	Owing to a lump of ore falling from a wagon of a set on to the rails of a self-acting incline, and tilting another wagon which ran over it, a coupling became detached. Two loaded wagons ran amain, struck the deceased and caused a fracture of the spine from the effects of which she died half an hour later. Inspection and inquiry made.
88	12th June, 5 A.M.	Bhutgoria Mine, Jharia P. O.	Aldih Coal Co., Ld.	Behari Passi, (m.), 45, <i>Trolleyman.</i>	Coal	He had fallen asleep and hearing the full train coming up attempted to remove the stop block which is fixed across the whole width of the entrance drift. He was caught by the train and dragged some distance, being so severely mauled that he died the next day. Inspection and inquiry made.
89	25th June, 8 P.M.	Bhuggutdih Mine, Dhanbaid P. O.	Bengal Nagpur Coal Co., Ld.	Lakha Mahato, (m.), 15, <i>Bailing coolie.</i>	Coal	He was heard to scream by the bottom hookman, and on going up the latter found him lying injured on the haulage road. He was probably attempting to ride up on the journey. He sustained a fractured thigh and died next day from shock. Inspection and inquiry made.
90	21st July, 10-20 A.M.	Bhulanbarari Mine, Jharia P. O.	Bhulanbarari Coal Co., Ld.	Jhari Burhi, (m.), 40, <i>Propping carpenter.</i>	Coal	Three tubs of a journey were pushed over the brow of an incline without being connected to the remainder. They ran wild and killed deceased who was repairing the wire of a lower safety gate underground. Inspection and inquiry made.
91	1st August, 9-30 A.M.	Khost Mine, Khost P. O.	North-Western Railway	Amar Nath, (m.), 31, <i>Mistri.</i>	Coal	While riding on the chains coupling the rope to a set, in a haulage road, the leading tub became derailed and he fell into the side of the road-way and was nipped between the tub and a prop. He died on the 5th January 1910, from the effects of the injuries received. Inspection and inquiry made.

92	27th August, 12-30 P.M.	Vanora Khas Mine, Charanpur P. O.	Maharaja M. C. Nandi	Fucha Turi, (m.), 35, Mohor Mahato, (m.), 45, <i>Water-bailers.</i>	Coal	Owing to the opening of a hook six tubs ran amain and killed the deceased who were bailing water below the buffer stop. <i>See Report, page 11.</i> Inspection and inquiry made.
93	19th October, 8-30 A.M.	Tikak Mine, Margherita P. O.	Assam Railways and Trading Co., Ld.	Ghunia, (m.), 32, <i>Rope-rider.</i>	Coal	He was coming out with a journey of full tubs, riding on a four yard chain which connected two sections of the journey together. Somehow he slipped off and the back section ran over him, causing such injuries that he died shortly after. Inspection and inquiry made.
94	30th December, 4 P.M.	Phularitand Mine, Katrasgarh P. O.	Phularitand Coal Co., Ld.	Chandia, (f.), 13, <i>Miner's carrier.</i>	Coal	A full tub which was being shunted on the surface, jumped the switches, broke the safety gate and ran amain down the incline. It caught Chandia and a man as they were coming outbye and injured the girl so severely that she died in twelve hours. Inspection and inquiry made.
SUNDRIES UNDERGROUND — (10 deaths).						
95	12th February, 9-30 P.M.	Central Kurkend Mine, Kusunda P. O.	Central Kurkend Coal Co., Ld.	Himia Turin, (f.), 18, <i>Coal-carrier.</i>	Coal	She was crushed while loading tubs and killed instantly. Inspection and inquiry made.
96	14th February, 12-15 P.M.	Bhulanbarari Mine, Jharia P. O.	Bhulanbarari Coal Co., Ld.	Etwari Beldar, (m.), 30, <i>Hook-man.</i>	Coal	As he and another man were bringing a loaded tub down a gradient of $\frac{1}{2}$ " to 3" in the yard the tub fouled the facing points of a pass bye, and reared up throwing him to the side and breaking his neck. Inspection and inquiry made.
97	15th February, 9-30 A.M.	Zardalu Mine, Khost Colliery, Khost P. O.	North-Western Railway	Hayat, (m.), 25, <i>Miner.</i>	Coal	In crossing over the top of a stenton it is surmised his foot became wedged between some timbers, and in trying to extricate it he lost his balance and fell down and broke his neck. Inspection and inquiry made.
98	29th April, 2 A.M.	Lodna Mine, Jharia P. O.	Lodna Colliery Co., Ld.	Koili Bhuia, (f.), 14, <i>Stack-carrier.</i>	Coal	A full journey of seven tubs was being brought along a level. Her clothes got caught in one of the wheels and she was dragged about 24 feet. She died the same day from shock. Inspection and inquiry made.
99	14th June, 8 P.M.	Upper Ledo Mine, Margherita P. O.	Assam Railways and Trading Co., Ld.	Bohora Kestin, (f.), 22, <i>Tub-pusher.</i>	Coal	While pushing tubs she got her head crushed between two tubs.
100	23rd June, 5-30 A.M.	Bagdiggi Mine, Jharia P. O.	C. J. Smith	Sahu Rajwari, (f.), 45, <i>Dust kamin.</i>	Coal	Run over by an empty tub while sitting at the end of a gallery off the haulage road. Inspection and inquiry made.
101	30th July, 1-30 P.M.	Kendwadih Mine, Kusunda P. O.	East Indian Coal Co., Ld.	Behari Rajwar, (m.), 32, <i>Miner.</i>	Coal	While standing upon an over-turned basket, pulling down a piece of coal and stone, he slipped and fell as it came away. He was injured so seriously that he died a fortnight later. Inspection and inquiry made.
102	6th October, 8-30 A.M.	Nimeha Mine, Searsol P. O.	Bamboni Coal Concern, Ld.	Naranga Majhain, (f.), 60, <i>Dust kamin.</i>	Coal	Whilst she sat smoking on a turnplate a loaded tub which was being pushed struck and killed her. Inspection and inquiry made.
103	21st November, Midnight.	Dishargarh Mine, Dishargarh P. O.	Equitable Coal Co., Ld.	Raboni Majhain, (f.), 12, <i>Coal-carrier.</i>	Coal	Owing to a bad joint in some underground rails a loaded tub was derailed and turning over upon its side threw its contents over the victim who sustained slight injuries about her head. High fever set in and she died four days later. Inspection and inquiry made.
104	23rd November, 12 Noon.	Sijua Mine, Sijua P. O.	Sijua Coal Co., Ld.	Jadhna Burhi, (m.), 24, <i>Propping coolie.</i>	Coal	A propping mistri had been drawing a prop. Deceased was with him. The top coal showed signs of coming down, and the mistri shouted to him to get back. In doing so he fell and cut himself between the legs on a sharp stone, and died half an hour later from collapse caused by excessive bleeding. Inspection and inquiry made.

APPENDIX I—contd.

Fatal Accidents, 1909—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.
ABOVE GROUND—(25 deaths).						
By Surface Machinery—(3 deaths).						
106	15th January 2 A.M.	Dherajoba Mine, Kusunda P. O.	Jharia Coal Syndicate, Ld.	Dharu Singh, (m.), 35, <i>Engine Assistant.</i>	Coal	He attempted to cross over a connecting rod whilst it was in motion, and a long cloth he had on got caught in the pinion, and he got jammed between two cog wheels. He died twenty-four hours later. Inspection and inquiry made.
106	8th April, 6 A.M.	Alkusa Mine, Kusunda P. O.	Raniganj Coal Association, Ld.	Ram Lal Dosadh, (m.), 13, <i>Shale picker.</i>	Coal	He crossed a fence to clean up a platform and was caught by his clothes in a belt wheel and sustained such serious injuries that he died the same night. Inspection and inquiry made.
107	6th June, 12 Noon.	Hosur Mine, Hosur Mines P. O.	Hosur Gold Mines, Ld.	Durga, (m.), 12, <i>Engine cleaner.</i>	Gold	He started a drilling machine out of mischief and his coat got caught by the revolving drill holder. He died two days later. Inspection and inquiry made.
On surface railways and tramways belonging to the mine—(6 deaths.)						
108	16th January, 5-15 P.M.	Tirori Mine, Kamptee P. O.	D. Laxminarain .	Sukia, (m.), 13, <i>Coolie.</i>	Manganese	He rode on a waste tram and failing to check its speed, fell with the tram over the end of the dump. His neck broke and he died on the spot. Inspection and inquiry made.
109	21st January, 10 A.M.	Kurkend Mine, Kusunda P. O.	Sudamdih Coal Co., Ld.	Komol Nunia, (m.), 45, <i>Loading coolie.</i>	Coal	He was crushed while attempting to cross between two uncoupled wagons when shunting was in progress. Inspection and inquiry made.
110	10th June, 11 A.M.	Kurhurbari Mine, Giridih P. O.	East Indian Railway Co.	Ramjani Meah, (m.), 20, <i>Loco. Guard.</i>	Coal	He slipped while coupling two wagons and his head got caught between the centre buffer of one wagon and the coupling hook of the other. He sustained a fracture of the skull and died fourteen hours later. Inspection and inquiry made.
111	27th July, 2-30 A.M.	Sitalpur Mine, Sitarampur P. O.	Bengal Coal Co., Ld.	Lakhu Bauri, (m.), 21, <i>Wagon trimmer.</i>	Coal	In some unaccountable way the deceased was knocked down by a wagon that was being lowered under the tippler shoot. He expired a few minutes after the accident. Inspection and inquiry made.
112	21st September, 8 A.M.	Ganzlatan Mine, Katrasgarh P. O.	New Manbhum Coal Co., Ld.	Lochon Roy's wife, (f.), 14, <i>Coal-carrier.</i>	Coal	She was crossing a siding when an engine was coming with a covered wagon in front, and was run over. It was raining heavily at the time. Inspection and inquiry made.
113	11th October, 10 P.M.	Baraboni Mine, Asansol P. O.	Bilbera Coal Co., Ld.	Fucha Turi, (m.), 22, <i>Fireman.</i>	Coal	Whilst he was crossing a tram line he was run over by a loaded tub which ran wild. He died two days later. See Report, page 12. Inspection and inquiry made.

Miscellaneous on surface (16 deaths).

114	22nd March, 9 P.M.	Silpur Mine, Charanpur P. O.	Katras-Jharia Coal Co., Ld.	Harrin Turi, (m.), 22, Banksman.	Coal	He was pouring kerosine oil from a tin into a lighted torch lamp when the oil ignited and an explosion occurred. He was so seriously burnt that he died two hours later. Inspection and inquiry made.
115	25th March, 3-30 P.M.	Sanctoria Mine, Dishargarh P. O.	Bengal Coal Co., Ld.	Prosanna Baurini, (f.), 58, Rahim Meah, (m.), 12, Kanai Passi, (m.), 16, Earth cutters.	Coal	Five persons were engaged cutting a trench 38' x 8' x 9' 6" in "made" ground to expose a brickwork foundation preparatory to dismantling it when the side collapsed. Three were killed and two seriously injured. See Report, page 12. Inspection and inquiry made.
116	1st April, 10-30 A.M.	Kabulgitti Mine, Kabulgitti P. O.	Dharwar Reefs Gold Mining Co., Ld.	Kullawa, (f.), 11, Coolie.	Gold	She fell into a slime pit where she went to fetch water for mixing mortar. Inspection and inquiry made.
117	1st April, 4-15 P.M.	Kandri Mine, Kamptee P. O.	Central Provinces Pros- pecting Syndicate, Ld.	Chottu, (m.), 60, Coolie.	Manganese	A coolie had bared a piece of ore from its bed when it fell over the edge of the face on to the deceased's head fracturing it. Inspection and inquiry made.
118	3rd April, 2-30 P.M.	Loyabad Mine, Bansjora P. O.	Barakar Coal Co., Ld.	Thami Meah, (m.), 28, Miner.	Coal	He and his younger brother aged 16 had been washing in an old quarry full of water, when the latter fell in. Deceased and another man went to the rescue. The other man pulled the boy out, but Thami was drowned. Inspection and inquiry made.
119	30th May, 12 Noon.	Kodur Mine, Chipurupalli P. O.	Vizianagram Mining Co., Ld.	Sandaka Madamma, (f.), 48, Coolie.	Manganese	She was standing in a sloping pathway leading into the quarry, when she fell over the edge, a distance of about 15 feet. She died within a few minutes of the fall. Inspection and inquiry made.
120	6th June, 4 P.M.	Nagooni Mine, Kanyara P. O.	Kangara Valley Slate Co., Ld.	Sown Mull Mahanjan, (m.), 55, Contractor.	Slate	He was working near the foot of a hill when he saw a large stone rolling towards him. In his effort to escape his foot slipped and the stone caught him in the back. He died 15 minutes later. Inspection and inquiry made.
121	24th June, 1 P.M.	Nagooni Mine, Kanyara P. O.	Kangra Valley Slate Co., Ld.	Gannu Rathi, (m.), 26, Coolie.	Slate	A large boulder became detached from the crest of a hill by a heavy fall of rain and rolling down the slope of the hill struck the deceased, who had been warned of its approach by his mate, full in the face. Inspection and inquiry made.
122	24th September, 5-30 P.M.	Sudreadih Mine, Nowagarh P. O.	Sudreadih Coal Co., Ld.	Bigu Singh, (m.), 55, Surface coolie.	Coal	He had been employed in moving a pump on the bank of the entrance to an old incline, which had fifteen feet of water in it at the deepest end. While his companions were resting he went back to the incline possibly to get some water and fell in and was drowned. Inspection and inquiry made.
123	9th October, 12 Noon.	Shwebontha Mine, Mogok P. O.	Burma Ruby Mines, Ld.	Kaw Sang, (m.), 35, Coolie.	Ruby	Fell down a bank and an iron sleeper cut deep into his thigh, severing several important blood vessels. He died at 11 P.M. the same day.
124	6th November, 5 A.M.	Serampur Mine, Giridih P. O.	East Indian Railway Co.	Hurru Dosadh, (m.), 21, Coal-cutter. Mitan Meah, (m.), 13, Coal-carrier.	Coal	Accidentally burnt to death whilst sleeping in a railway wagon. Inspection and inquiry made.
125	16th November, 5-30 P.M.	Red Hill Mine, Mogok P. O.	Burma Ruby Mines, Ld.	Lou Lit, (m.), 40, Coolie.	Ruby	Killed by an electric shock received by catching hold of a leaking stay wire out of curiosity.
126	5th December, ?	Sukli Mine, Kamptee P. O.	Central India Mining Co., Ld.	Nerbuddia, (f.), 35, Ore-carrier.	Manganese	She was found drowned. Inspection and inquiry made.

APPENDIX I—contd.

Fatal Accidents, 1909—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.
DEATHS NOT INCLUDED IN THE STATISTICS—(29 deaths.)							
1	28th February, 10 P.M.	Angarpatra Mine, Katrasgarh P. O.	Angarpatra Coal Co., Ld.	Baran Gope. (m.), 14, <i>Dust coolie.</i>	Coal	Not a mine accident.	He with others were sleeping on straw in a hut when it caught fire, and he got burnt so severely that he died from the effects the following day. Inspection and inquiry made.
2	4th March, 10 A.M.	Sibpur Mine, Charanpur P. O.	Katras-Jharia Coal Co., Ld.	Sakio Majhain, (f.), 9.	Coal	Not em- ployed.	Whilst drawing water from an abandoned and waterlogged quarry she fell in and was drowned. Inspection and inquiry made.
3	14th March, 9-15 A.M.	Panchgatchia Mine, Sitarampur P. O.	Lutchipur Coal Co., Ld.	Khuki Baurini, (f.), 2½.	Coal	Not em- ployed.	The khalusi riding on the front wagon of a set of empties during shunting operations noticed three children playing on the line. He seized two of them but failed to reach the third who was knocked down and killed. See Report, page 13. Inspection and inquiry made.
4	10th May, 10 A.M.	Loyabad Mine, Bansjora P. O.	Barakar Coal Co., Ld.	Jitoon, (f.), 3.	Coal	Not em- ployed.	The child was missed by its mother who was working close by a boiler tank, and on a search being made the body was found inside the tank. Inspection and inquiry made.
5	12th May, 5 P.M.	Katras Mine, Katrasgarh P. O.	Nowagarh Coal Co., Ld.	Tukna Kumar, (m.), 5.	Coal	Not em- ployed.	Drowned whilst playing in a surface washing tank, the mother was washing clothes at the tank at the time. Inspection and inquiry made.
6	19th May, 3-30 P.M.	Kapasara Mine, Barakar P. O.	Bengal Oriental Coal Co.	Ajodhya Gorain, (m.), 35. <i>Miner.</i>	Coal	Not a mine accident.	He was struck by lightning as he was preparing to enter an incline. He died from shock three hours later. Inspection and inquiry made.
7	23rd May, 10 A.M.	Loyabad Mine, Bansjora P. O.	Barakar Coal Co., Ld.	Idan Meah, (f.), 6.	Coal	Not em- ployed.	She was sitting on the bank of an old quarry full of water, inside the fence, and slipped into the water. A boy of 7 years was the only person with her at the time. Inspection and inquiry made.
8	26th May, 1 P.M.	Sitapar Mine, Ramakona P. O.	Indian Manganese Co., Ld.	Kishni, (f.), 7.	Manganese	Not em- ployed.	A rafter in a godown broke and let fall a number of corrugated iron sheets on the child which killed her outright.
9	4th June, ?	Raniganj Mine, Raniganj P. O.	Bengal Coal Co., Ld.	? (m.), 30.	Coal	Not em- ployed.	He was found drowned in an old well. Inspection and inquiry made.
10	11th June, 6-30 P.M.	Bhulanbarari Mine, Jharia P. O.	Bhulanbarari Coal Co., Ld.	Hiria, (f.), 10.	Coal	Not em- ployed.	She went to a well to draw water and fell over the wall guarding it and was drowned. Inspection and inquiry made.
11	14th June, 6 P.M.	Charanpur Mine, Charanpur P. O.	Reliance Coal Co., Ld.	Ladhu Moira, (m.), 7.	Coal	Not em- ployed.	Run over by a train of tubs whilst playing on the line. Inspection and inquiry made.
12	12th July, 1 P.M.	Gobindpur Mine, Katrasgarh P. O.	Gobindpur Coal Co., Ld.	Gope, (m.), 12.	Coal	Not em- ployed.	While attempting to fill a brass vessel with water he slipped and fell into the tank and was drowned. Inspection and inquiry made.

13	19th August, 6 P.M.	Baraboni Mine, Asansol P. O.	Baraboni Coal Concern, Ld.	Chunki, (f.), 3.	Coal	Not employed.	She fell into a boiler tank unnoticed and was drowned. Inspection and inquiry made.
14	27th August, 3-15 P.M.	Steam tramway on the Tumsur-Katangji Road.	Central India Mining Co., Ld.	Adku Kumbi, (m.), 65, <i>Herdman.</i>	Manganese	Not employed on the mine.	He was tending cattle and in trying to cross the lines was knocked over by the engine and killed. Inspection and inquiry made.
15	6th September, 8 P.M.	Bhalgora Mine, Jharia P. O.	Bhalgora Coal Co., Ld.	Shib Dohin, (m.), 32.	Coal	Not employed.	He was run over while attempting to cross the tramway and was so severely injured that he died on the 10th September. Inspection and inquiry made.
16	25th September, 3-30 P.M.	Baraboni Mine, Charanpur P. O.	New Beerbhum Coal Co., Ld.	Passu Kole, (f.), 1½	Coal	Not employed.	The child was near the line when a tub grazed against her leg. She died of shock the next day. Inspection and inquiry made.
17	29th September, ?	Kusunda Mine, Kusunda P. O.	Patel & Co.	? (m.), 35.	Coal	Not employed.	He appears to have been a beggar. He was found drowned. Inspection and inquiry made.
18	15th October, ?	Abandoned quarry	Equitable Coal Co., Ld.	Bhupati Bhusan Mookerji, (m.), ? Kumda Harini, (f.), ? Bauri Harini (f.), ? Kalpa Harini, (f.), ? Fulkumari Keotini, (f.), ?	Coal	Not employed.	Killed by a fall of overburden whilst getting sandstone. Inspection and inquiry made.
19	17th October, 5 P.M.	North Kustore Mine, Kusunda P. O.	Raniganj Coal Association, Ld.	Muckta Kamari, (f.), 50.	Coal	Not employed.	She was digging white earth at the side of the entrance to an old incline when overhanging material slipped down and buried and killed her. Inspection and inquiry made.
20	23rd November, 3 P.M.	Angarpatra Mine, Katrasgarh P. O.	Angarpatra Coal Co., Ld.	Dugaya Passin, (f.), 25.	Coal	Not employed.	Accidentally fell down No. 2 pit which is used as a well, whilst drawing water and was drowned. Inspection and inquiry made.
21	29th November, 3-30 P.M.	Bamundiha Mine, Sitarampur P. O.	Damuda Coal Co., Ld.	Bhaglu Dome, (m.), 35, <i>Propping coolie.</i>	Coal	Cause of accident unknown.	His body was found in a high state of decomposition carefully covered over with stones on the site of an old fall of roof on the date given. Inspection and inquiry made.
22	2nd December, 3-30 P.M.	Januria Mine, Nandi P. O.	Equitable Coal Co., Ld.	Gokul Adikeri, (m.), 14.	Coal	Not employed.	He opened the shaft gates at the surface level and jumped down the shaft a depth of 186 feet. He was killed on the spot. Inspection and inquiry made.
23	8th December, 10 P.M.	Jakarkote Mine, Katha P. O.	Bhagwan Das Ram Das.	Raja, (m.), 16. Sultan, (m.), 50.	Coal	Not employed.	Killed by a sudden collapse of roof.
24	25th December, 5-30 P.M.	Januria Mine, Nandi P. O.	Equitable Coal Co., Ld.	Batus Rai Bhuia, (m.), 8.	Coal	Not employed.	He was sitting on the line near his mother who was filling a tub on a slight incline. The tub ran down the slope and over him, killing him on the spot. Inspection and inquiry made.

APPENDIX II.

Table No. 1.

Indian Mines Act, 1901, Numbers of Mines and Workers, year 1909.

PROVINCE.	District and Mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.		NUMBER OF MINES INSPECTED DURING THE YEAR.		AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.								Grand Total below ground and above ground.
			Worked by steam.	Not worked by steam.	Once.	Twice or more.	BELOW GROUND.				ABOVE GROUND.				
							Adult males.	Adult females.	Children (under 12).	Total below ground.	Adult males.	Adult females.	Children (under 12).	Total above ground.	
A.—COAL.															
Bengal	Hazaribagh { Bokaro	4	...	4	3	...	53	54	5	112	28	22	3	53	165
	Hazaribagh { Ramgarh	11	7	4	4	3	3,170	1,179	29	4,378	1,780	902	78	2,760	7,138
	Hazaribagh { Giridih	216	70	146	57	33	19,775	14,410	395	33,580	12,676	6,106	1,145	19,927	53,507
	Mambhum { Jharia	62	9	53	33	6	2,671	1,071	7	3,749	1,079	616	48	1,743	5,492
	Bankura	1	...	1	1	...	26	20	...	46	1	2	...	3	49
	Burdwan	164	112	52	104	54	15,511	6,831	183	22,525	7,663	4,180	242	12,085	34,610
	Sonthal Parganas, Raniganj.	2	...	2	...	...	17	6	...	23	4	2	...	6	29
	Sonthal Parganas, Rajmahal.	1	...	1	...	...	18	22	3	43	4	5	...	9	52
	Palaman, Daltonganj	2	2	...	2	...	290	170	41	501	205	74	29	308	809
	Birbhum, Raniganj	1	...	1	...	1	10	8	...	18	8	2	...	10	28
Sambalpur, Hingir-Rampur.	1	...	1	...	...	249	125	...	374	...	...	...	...	374	
	TOTAL	465	200	265	204	97	40,790	23,896	663	65,349	23,448	11,911	1,545	36,904	102,253
Central Provinces.	Chhindwara, Pench Valley.	5	5	...	5	...	344	206	15	565	254	106	12	372	937
	Narsinghpur, Mohpani	1	1	...	...	1	526	258	...	787	363	54	...	437	1,224
	Chanda, Ballarpur	1	1	...	...	1	576	...	...	576	174	...	...	174	750
	TOTAL	7	7	...	5	2	1,449	464	15	1,923	811	160	12	983	2,911
Panjab	Jhelum	11	...	11	9	2	645	...	7	652	499	...	11	510	1,162
	Shalpur	4	...	4	...	...	49	...	...	49	5	...	...	5	54
	Mianwali	1	...	1	1	...	7	...	...	7	...	...	...	...	7
	TOTAL	16	...	16	10	2	701	...	7	708	504	...	11	515	1,223
Eastern Bengal and Assam.	Lakhimpur	7	6	1	1	4	820	300	...	1,120	406	240	29	675	1,795
Baluchistan	Sibi, Khost	1	1	...	...	1	524	...	...	524	237	...	29	266	790
	Quetta, Sor Range	7	...	7	7	...	108	...	...	108	26	...	...	26	134
	Kalat, Mach and Digari	6	...	6	2	...	148	...	...	148	26	...	...	26	174
	Loralai, Loralai	1	...	1	...	...	5	...	...	5	2	...	...	2	7
	TOTAL	15	1	14	9	1	785	...	...	785	291	...	29	320	1,105
N.-W. Frontier Province.	Hazara	1	...	1	...	...	4	...	...	4	...	...	...	4	4
	GRAND TOTAL (COAL).	511	214	297	229	106	44,549	24,660	666	69,894	25,460	12,311	1,628	39,397	109,291
B.—MICA.															
Bengal	Mambhum	1	...	1	...	...	5	6	...	11	4	3	1	8	19
	Monghyr	2	...	2	...	...	56	102	...	158	126	149	...	275	433
	Hazaribagh	83	...	83	30	...	2,115	878	105	3,098	686	814	753	2,253	5,351
	Gaya	15	...	15	...	...	473	307	80	860	95	68	52	215	1,075
	TOTAL	101	...	101	30	...	2,649	1,293	185	4,127	911	1,034	806	2,751	6,878
Madras	Nellore	68	...	68	51	...	1,055	821	87	1,963	321	329	291	941	2,904
Rajputana	Ajmer-Merwara	3	...	3	3	...	19	...	...	19	42	18	4	64	83
	GRAND TOTAL (MICA).	172	...	172	84	...	3,723	2,114	272	6,109	1,374	1,381	1,101	3,756	9,865

APPENDIX II—contd.

Table No. 1—contd.

Indian Mines Act, 1901, Numbers of Mines and Workers, year 1909.

PROVINCE.	District and Mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.		NUMBER OF MINES INSPECTED DURING THE YEAR.		AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.								Grand Total below ground and above ground.
			Worked by steam.	Not worked by steam.	Once.	Twice or more.	BELOW GROUND.				ABOVE GROUND.				
							Adult males.	Adult females.	Children (under 12).	Total below ground.	Adult males.	Adult females.	Children (under 12).	Total above ground.	
C.—MANGANESE.															
Central Provinces.	Nagpur	12	...	12	1	2	1,237	844	...	2,081	308	191	10	509	2,590
	Bhandara	3	...	3	2	...	446	280	...	726	116	59	...	175	901
	Balaghat	6	...	6	4	...	1,179	583	55	1,817	273	88	24	385	2,202
	Chhindwara	3	1	2	...	...	247	206	...	453	14	54	...	68	521
	TOTAL	24	1	23	7	2	3,109	1,913	55	5,077	711	392	34	1,137	6,214
Madras	Vizagapatam	11	...	11	1	...	1,693	888	10	2,591	774	485	80	1,339	3,930
Bombay	Panch Mahals	2	...	2	...	...	210	90	18	318	220	87	26	333	651
	GRAND TOTAL (MANGANESE)	37	1	36	8	2	5,012	2,891	83	7,986	1,705	964	140	2,809	10,795
D.—LIMESTONE.															
Central Provinces.	Jabalpur, Katni	20	...	20	7	10	1,035	1,413	64	2,512	560	562	75	1,197	3,709
Punjab	Hoshiarpur	1	...	1	...	...	40	...	...	40	50	...	...	50	90
	GRAND TOTAL (LIMESTONE)	21	...	21	7	10	1,075	1,413	64	2,552	610	562	75	1,247	3,799
E.—SALT.															
Punjab	Shahpur	1	...	1	...	...	28	26	3	57	...	...	...	...	57
	Jhelum	2	...	2	...	1	436	406	61	903	41	...	...	41	914
	Mianwali	1	...	1	1	...	60	...	...	60	...	...	...	...	60
	GRAND TOTAL (SALT)	4	...	4	1	1	524	432	64	1,020	41	...	...	41	1,061
F.—GEMS.															
Burma	Mogok (Rubies, etc.)	1	1	...	...	...	652	...	...	652	733	...	...	733	1,385
G.—SLATE.															
Bengal	Monghyr	6	...	6	6	...	136	73	...	209	61	5	...	66	275
Punjab	Kangra	2	...	2	2	...	80	...	...	80	129	25	35	160	260
	Gurgaon	3	...	3	3	...	47	...	30	77	97	...	13	110	187
	TOTAL	5	...	5	5	...	127	...	30	157	217	25	48	290	447
	GRAND TOTAL (SLATE)	11	...	11	11	...	263	73	30	366	278	30	48	356	723
H.—GOLD.															
Bombay	Dharwar	5	5	...	4	1	1,123	...	1	1,124	502	65	59	626	1,750
Madras	Anantapur	3	3	...	3	...	331	...	...	331	209	40	19	268	599
	GRAND TOTAL (GOLD)	8	8	...	7	1	1,454	...	1	1,455	711	105	78	894	2,349

APPENDIX II—contd.

Table No. 1—concl'd.

Indian Mines Act, 1901, Number of Mines and Workers, year 1909.

PROVINCE.	District and Mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINE.		AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
			Worked by steam.	Not worked by steam.	NUMBER OF MINES INSPECTED DURING THE YEAR					BELOW GROUND.				ABOVE GROUND.				Grand Total below ground and above ground.
					Once.	Twice or more.	Adult males.	Adult females.	Children (under 12)	Total below ground.	Adult males.	Adult females.	Children (under 12).	Total above ground.				
I.—IRON.																		
Bengal . . .	Singhbhum . . .	5	...	5	...	...	...	...	...	...	...	190	363	...	553	553
J.—WOLFRAMITE.																		
Central Provinces.	Nagpur . . .	1	...	1	...	...	...	40	8	...	48	30	7	...	37	85
Burma . . .	Mergui . . .	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL (Wolframite).		2	...	2	...	...	...	40	8	...	48	30	7	...	37	85
K.—MAGNESITE.																		
Madras . . .	Salem . . .	1	..	1	...	...	...	23	19	26	68	26	20	35	81	149
L.—CHROMITE.																		
Baluolistan . . .	Quetta-Fishin . . .	2	...	2	...	...	...	6	...	...	6	10	...	...	10	16
M.—COPPER.																		
Bengal . . .	Singhbhum . . .	2	2	...	1	...	...	180	...	...	180	118	52	10	175	355
N.—FULLER'S EARTH.																		
Central Provinces.	Jabalpur . . .	1	...	1	1	...	...	...	...	...	...	...	...	...	...	... †
O.—CLAY.																		
Central Provinces.	Jabalpur . . .	1	...	1	1	...	...	16	36	...	52	24	8	...	32	84
P.—GALENA.																		
Burma . . .	Mandalay . . .	1	...	1	...	...	...	4	...	...	4	4	...	...	4	8
Q.—TIN.																		
Burma . . .	Maliwan . . .	1	...	1	...	...	...	47	...	...	47	40	...	...	40	87
R.—STEATITE.																		
Central Provinces.	Jabalpur . . .	3	...	3	...	...	...	25	15	...	40	28	18	...	46	86
S.—BAUXITE.																		
Central Provinces.	Jabalpur . . .	1	...	1	...	...	...	11	5	...	16	4	...	...	4	20
GRAND TOTAL (ALL MINERALS).		785	226	559	350	120	57,604	31,666	1,225	90,495	31,281	15,821	3,118	50,215	140,716			

* Figures included along with that of Tin.

† Figures included along with that of Limestone.

APPENDIX II—contd.

Table No. 2.

Classified Statement of Fatal and Serious Accidents in and about Mines regulated by the Indian Mines Act, 1901, during the year 1909.

PROVINCE.	District and Mineral field.	Total average number of persons employed daily.	Total output.	Number of separate fatal accidents.	NUMBER OF DEATHS.			Number of serious non-fatal accidents.	NUMBER OF PERSONS PERIOUSLY INJURED.			DEATH-RATE PER 1,000 PERSONS EMPLOYED.		
					Below ground.	Above ground.	Total deaths.		Below ground.	Above ground.	Total number of persons injured.	Below ground.	Above ground.	Below ground and above ground.
A.—COAL.														
Bengal	Hazaribagh (Bokaro-Rangurh)	99	Tons. 4,326	...	...	...	...	...	...	...	...	...	...	...
	" (Giridih)	7,204	702,811	5	6	3	9	16	14	2	16	1.35	1.07	1.24
	Manbhum, Jharis	53,507	5,632,672	46	42	6	48	43	28	15	43	1.35	30	89
	" (Raniganj)	5,492	506,195	1	1	...	1	2	2	...	2	2.4	...	18
	Bankura, "	49	4,630	...	...	...	...	...	...	...	...	...	...	...
	Burdwan, "	34,610	3,520,361	29	36	6	42	40	36	10	46	1.59	49	1.21
	Sonthal Parganas, Raniganj	29	2,379	...	...	...	...	...	...	...	...	...	...	...
	" (Rajmahal)	52	1,900	...	...	...	...	...	...	...	...	...	...	...
	Palaman, Daltonganj	809	84,290	...	...	...	...	...	...	...	...	...	...	...
	Birbhum, Raniganj	28	1,247	...	...	...	...	...	...	...	...	...	...	...
Sambalpur, Hingir-Rampur	374	...	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	102,253	10,660,811	81	85	15	100	101	80	27	107	1.30	40	97
Central Provinces	Chhindwara, Pench Valley	937	92,196	2	2	...	2	10	11	...	11	3.53	...	2.13
	Narsinghpur, Mohpani	1,224	60,607	...	...	...	...	2	2	...	2	...	...	...
	Chanda, Ballarpur	750	85,237	...	...	...	...	4	3	1	4	...	...	...
	TOTAL	2,911	238,100	2	2	...	2	16	16	1	17	1.03	...	68
Panjab	Jhelum	1,162	34,135	2	2	...	2	5	2	3	5	3.06	...	1.72
	Shahpur	54	3,028	...	...	...	...	...	...	...	...	...	...	...
	Mianwali	7	45	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	1,223	37,208	2	2	...	2	5	2	3	5	2.82	...	1.63
Eastern Bengal and Assam	Lakhimpur	1,795	305,563	9	12	...	12	3	3	...	3	10.71	...	6.68
Baluchistan	Sibi, Khost	790	40,237	3	3	...	3	1	1	...	1	5.72	...	3.70
	Quetta, Sor Range	131	5,500	...	...	...	...	...	...	...	...	...	...	...
	Kalat, Mach and Digari	174	6,519	...	...	...	...	1	1	...	1	...	...	...
	Loralai, Loralai	7	193	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	1,105	52,449	3	3	...	3	2	2	...	2	3.82	...	2.71
N.-W. Frontier Province	Hazara	4	96	...	...	...	...	...	...	...	...	...	...	...
	GRAND TOTAL (COAL)	109,291	11,294,227	97	104	15	119	127	103	31	134	1.48	38	108
B.—MICA.														
Bengal	Manbhum	19	Cwts. 2	...	...	...	...	...	...	...	...	...	...	...
	Monghyr	433	669	...	...	...	...	...	...	...	...	...	...	...
	Hazaribagh	5,351	17,277	5	7	...	7	4	3	1	4	2.25	...	1.30
	Gaya	1,075	3,953	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	6,878	21,901	5	7	...	7	4	3	1	4	1.69	...	1.01
Madras	Nellore	2,904	8,908	...	...	...	...	1	...	1	1	...	...	...
Rajputana	Ajmer-Merwara	88	1,202	...	...	...	...	...	...	...	...	...	...	...
	GRAND TOTAL (MICA)	9,865	32,011	5	7	...	7	5	3	2	5	1.14	...	.70

APPENDIX II—contd.

Table No. 2—contd.

Classified Statement of Fatal and Serious Accidents in and about Mines regulated by the Indian Mines Act, 1901, during the year 1909—contd.

PROVINCE.	District and Mineral field.	Total average number of persons employed daily.	Total output.	Number of separate fatal accidents.	NUMBER OF DEATHS.			Number of serious non-fatal accidents.	NUMBER OF PERSONS SERIOUSLY INJURED.			DEATH-RATE PER 1,000 PERSONS EMPLOYED.		
					Below ground.	Above ground.	Total deaths.		Below ground.	Above ground.	Total number of persons injured.	Below ground.	Above ground.	Below ground and above ground.
C.—MANGANESE.														
Central Provinces	Nagpur	2,590	Tons. 104,006	3	...	3	3	7	2	5	7	...	5.89	1.15
	Bhandara	901	58,374	...	...	...	...	1	...	1	1	...	...	...
	Balaghat	2,202	99,886	...	...	...	...	6	...	6	6	...	...	...
	Chhindwara	521	17,464	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	6,214	279,730	3	...	3	3	14	2	12	14	...	2.63	.48
Madras	Vizagapatam	3,980	59,818	2	1	1	2	...	...	...	...	.39	.74	.50
Bombay	Panch Mahals	651	17,657	1	1	...	1	1	...	1	3.14	...	1.53	
GRAND TOTAL (MANGANESE)		10,795	357,205	6	2	4	6	15	3	12	15	.26	1.42	.55
D.—LIMESTONE.														
Central Provinces	Jabalpur, Katni	3,709	Tons. 56,002	...	...	...	...	...	...	...	...	...	...	...
Punjab	Hoshiarpur	90	500	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL (LIMESTONE)		3,799	56,502	...	...	...	...	...	...	...	...	...	...	...
E.—SALT.														
Punjab	Shahpur	57	Tons. 6,312	...	...	...	...	...	...	...	...	...	...	...
	Jhelum	944	109,539	...	...	...	...	11	10	1	11	...	...	...
	Mianwali	60	11,136	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL (SALT)		1,061	126,987	...	...	...	...	11	10	1	11	...	...	...
F.—GEMS.														
Burma	Mogok (Rubies, etc.)	1,985	Carats. 265,010	2	...	2	2	...	...	...	...	...	2.72	1.44
G.—SLATE.														
Bengal	Monghyr	275	Tons. 1,423	...	...	...	...	3	1	2	3	...	...	...
Punjab	Kangra	260	3,700	2	...	2	2	...	...	...	...	...	11.11	7.69
	Gurgaon	187	1,931	...	...	...	...	2	...	2	2	...	...	...
	TOTAL	447	5,631	2	...	2	2	2	...	2	2	...	6.80	4.47
GRAND TOTAL (SLATE)		722	7,054	2	...	2	2	5	1	4	5	...	5.61	2.77
H.—GOLD.														
Bombay	Dharwar	1,750	Ounces. 5,615	7	6	2	8	3	4	...	4	5.33	3.19	4.57
Madras	Anantapur	599	...	6	7	...	7	2	2	...	2	21.14	...	11.69
GRAND TOTAL (GOLD)		2,349	5,615	13	13	2	15	5	6	...	6	8.03	2.23	6.38

APPENDIX II.—*concl.*Table 2—*concl.*

Classified Statement of Fatal and Serious Accidents in and about Mines regulated by the Indian Mines Act, 1901, during the year 1909—*concl.*

PROVINCE.	District and Mineral field.	Total average number of persons employed daily.	Total output.	Number of separate fatal accidents.	NUMBER OF DEATHS.			Number of serious non-fatal accidents.	NUMBER OF PERSONS SERIOUSLY INJURED.			DEATH-RATE PER 1,000 PERSONS EMPLOYED.			
					Below ground.	Above ground.	Total deaths.		Below ground.	Above ground.	Total number of persons injured.	Below ground.	Above ground.	Below and above ground.	
I.—IRON ORE.															
Bengal	Singhbhum	553	Tons. 15,214	...	...	...	...	...	...	...	...	...	...	...
J.—WOLFRAMITE.															
Central Provinces	Nagpur	85	Cwts. 4	...	...	...	...	...	...	...	...	...	...	...
Burma	Mergui . . . . .	... *	140	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL (Wolframite).		85	144	...	...	...	...	...	...	...	...	...	...	...
K.—MAGNESITE.															
Madras	Salem	149	Tons. 737	...	...	...	...	...	...	...	...	...	...	...
L.—CHROMITE.															
Baluchistan	Quetta-Pishin	16	Cwts. 10,122	1	1	...	1	...	...	...	...	166.66	...	62.5
M.—COPPER.															
Bengal	Singhbhum	355	Tons. 7	...	...	...	...	...	...	...	...	...	...	...
N.—FULLER'S EARTH.															
Central Provinces	Jabalpur	†	Tons. 97	...	...	...	...	...	...	...	...	...	...	...
O.—CLAY.															
Central Provinces	Jabalpur	84	Tons. 10,214	...	...	...	...	...	...	...	...	...	...	...
P.—GALENA.															
Burma	Mandalay	8	Tons. 2	...	...	...	...	...	...	...	...	...	...	...
Q.—TIN.															
Burma	Maliwan	87	Cwts. 1,520	...	...	...	...	...	...	...	...	...	...	...
R.—STEATITE.															
Central Provinces	Jabalpur	86	Cwts. 11,296	...	...	...	...	...	...	...	...	...	...	...
S.—BAUXITE.															
Central Provinces	Jabalpur	20	Tons. 32	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL (ALL MINERALS).		140,710	Tons. 11,868,278	126	127	25	152	168	126	50	176	1.40	.49	1.08	
			Cwts. 55,093												
			Ounces. 5,815												
			Carats. 265,010												

* Figures included along with that of Tin.

† Figures included along with that of Limestone.

APPENDIX II—*contd.*

Table No. 3.

The following table is a summary of the average number of persons working daily in and about mines regulated by the Indian Mines Act, 1901, during the year 1909.

PROVINCE.	AVERAGE NUMBER OF PERSONS WORKING DAILY IN AND ABOUT MINES GETTING						
	Coal.	Mica.	Manganese.	Limestone.	Salt.	Other minerals.	Total persons.
Bengal	102,253	6,878	...	...	...	1,183	110,314
Central Provinces	2,911	...	6,214	3,709	...	275	13,109
Madras . . . . .	...	2,904	3,930	...	...	748	7,582
Eastern Bengal and Assam	1,795	...	...	...	...	...	1,795
Baluchistan	1,105	...	...	...	...	16	1,121
Panjab	1,223	...	...	90	1,061	447	2,821
Burma . . . . .	...	...	...	...	...	1,480	1,480
Bombay . . . . .	...	...	651	...	...	1,750	2,401
Rajputana . . . . .	...	83	...	...	...	...	83
North-West Frontier Province	4	...	...	...	...	...	4
Total 1909	109,291	9,865	10,795	3,799	1,061	5,899	140,710
Total in preceding year	120,107	15,277	16,416	3,285	807	8,409	164,301
Difference	-10,816	-5,412	-5,621	+514	+254	-2,510	-23,591

Table No. 4.

QUANTITY OF MINERAL RAISED.

The following short summary shows the output of the principal minerals from mines regulated by the Indian Mines Act, 1901, for the year 1909.

PROVINCE.	Coal.	Manganese.	Mica.	Limestone.	Salt.
	Statute Tons.	Statute Tons.	Statute Cwts.	Statute Tons.	Statute Tons.
Bengal	10,660,811	...	21,901	...	...
Central Provinces	238,100	279,730	...	56,002	...
Madras . . . . .	...	59,818	8,908	...	...
Eastern Bengal and Assam	305,563	...	...	...	...
Baluchistan	52,449	...	...	...	...
Panjab	37,208	...	...	500	126,987
Rajputana . . . . .	...	...	1,202	...	...
Bombay . . . . .	...	17,657	...	...	...
North-West Frontier Province	96	...	...	...	...
Total in 1909	11,294,227	357,205	32,011	56,502	126,987
Total in preceding year	12,149,020	494,942	46,208	101,569	93,779
Difference	--854,793	-137,737	-14,197	-45,067	+33,208

APPENDIX II—*contd.*

Table No. 5.

The following table shows the average number of persons working daily in and about mines regulated by the Indian Mines Act, 1901, during the years 1908 and 1909.

ALL MINES UNDER THE ACT.

Description of workers.	Year 1908.	Year 1909.	Difference.
	Below ground.	Below ground.	Below ground.
Adult Males	65,982	57,604	-8,378
Adult Females	34,580	31,666	-2,914
Children under 12	1,889	1,225	-664
TOTAL BELOW GROUND	102,451	90,495	-11,956
	Above ground.	Above ground.	Above ground.
Adult Males	37,340	31,281	-6,059
Adult Females	19,938	15,821	-4,117
Children under 12	4,572	3,113	-1,459
TOTAL ABOVE GROUND	61,850	50,215	-11,635
TOTAL BELOW AND ABOVE GROUND	164,301	140,710	-23,591

ALL COAL-MINES UNDER THE ACT.

	Below ground.	Below ground.	Below ground.
Adult Males	48,888	44,549	-4,339
Adult Females	26,204	24,660	-1,544
Children under 12	1,116	685	-431
TOTAL BELOW GROUND	76,208	69,894	-6,314
	Above ground.	Above ground.	Above ground.
Adult Males	27,758	25,460	-2,298
Adult Females	14,116	12,311	-1,805
Children under 12	2,025	1,626	-399
TOTAL ABOVE GROUND	43,899	39,397	-4,502
TOTAL BELOW AND ABOVE GROUND	120,107	109,291	-10,816

Table No. 6.

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, gold, iron ore, magnesite, chromite, copper, tin, steatite, bauxite, fuller's earth, clay, galena and wolframite.

YEAR.	Coal.	Manganese.	Mica.	Limestone.	Salt.
	Tons.	Tons.	Cwts.	Tons.	Tons.
1899	4,622,242	87,126	10,860	1,177	78,754
1900	5,452,408	92,458	18,320	...	79,996
1901	6,251,522	162,057	19,900	28,000	90,242
1902	6,790,507	144,037	21,360	30,091	87,361
1903	6,812,725	171,223	20,100	35,238	90,667
1904	7,561,338	138,733	21,320	50,847	107,413
1905	7,770,471	204,194	25,548	93,170	94,078
1906	9,112,663	436,442	50,438	48,836	118,023
1907	10,526,468	642,082	44,919	73,222	101,703
1908	12,149,020	494,942	46,208	101,569	93,779
1909	11,294,227	357,205	32,611	56,502	126,987

APPENDIX II—*contd.*

Table No. 7.

The following table shows the amount of coal raised, the average number of persons working daily and the death-rates during the years 1899 to 1909 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.
1899	4,622,242	65,795	73	15.79	1.11
1900	5,452,408	80,003	52	9.53	.64
1901	6,251,522	85,361	58	9.28	.67
1902	6,790,507	89,503	59	8.69	.66
1903	6,812,725	79,561	67	9.83	.84
1904	7,561,338	82,002	55	7.27	.67
1905	7,770,471	79,506	58	7.46	.72
1906	9,112,663	90,159	80	8.78	.89
1907	10,526,468	102,639	89	8.45	.86
1908	12,149,020	120,107	164	13.49	1.36
1909	11,294,227	109,291	119	10.53	1.08

Table No. 8.

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.	Countries.	Tons of coal raised.	Persons employed.	Tons raised per person employed.
1908	United Kingdom	261,528,795	972,232	268
1907	United States	480,360,272	680,492	705
"	Germany	226,778,397	611,792	370
"	Austria	44,215,751	126,321	350
"	France	40,513,257	183,862	220
"	Belgium	26,130,059	142,699	183
"	Nova Scotia	5,730,660	12,133	472
"	British Columbia	2,219,608	6,059	366
"	Australia	9,681,044	19,434	498
"	Natal	1,530,043	7,233	211
"	Transvaal	2,574,485	9,298	276
"	Japan	15,216,015	128,772	118
"	New Zealand	1,831,009	3,910	468
1906	Russia	23,949,860	145,392	164
	Totals and average	1,142,259,255	3,049,629	374
	British India	11,294,227	109,291	103

APPENDIX II—contd.

Table No. 9.

Fatal accidents and deaths in mines regulated by the Indian Mines Act, 1901, during the year 1909, classified according to the mineral worked.

MINERAL.	PROVINCE AND MINERAL AREA.	Number of separate fatal accidents.	NUMBER OF DEATHS.								TOTAL BELOW AND ABOVE GROUND.	
			BELOW GROUND.				ABOVE GROUND.					
			Adult males.	Adult females.	Children (under 12).	TOTAL.	Adult males.	Adult females.	Children (under 12).	TOTAL.		
COAL	Baluchistan	3	3	...	...	3	...	...	...	3	3
	Bengal {	Daltonganj
		Giridih	5	6	6	3	3	9
		Jharia	46	33	9	...	42	5	1	...	6	48
		Baniganj	30	33	4	...	37	5	1	...	6	43
	TOTAL (BENGAL)	81	72	13	...	85	13	2	...	15	100	
	Central Provinces	2	2	...	...	2	...	...	...	...	2
	Eastern Bengal and Assam	9	10	2	...	12	...	...	...	...	12
Panjab	2	2	...	...	2	...	...	...	...	2	
TOTAL COAL	97	89	15	...	104	13	2	...	15	110		
MICA	Bengal	5	7	...	...	7	...	...	...	7	7
MANGANESE	Central Provinces	3	...	...	...	...	2	1	...	3	3
	Madras	2	...	1	...	1	...	1	...	1	2	
	Bombay	1	1	...	...	1	...	...	...	...	1
	TOTAL MANGANESE	6	1	1	...	2	2	2	...	4	6	
GEMS	Burma	2	...	...	...	...	2	...	...	2	2
SLATE	Panjab	2	...	...	...	...	2	...	...	2	2
GOLD	Bombay	7	6	...	...	6	1	...	1	2	8
	Madras	6	7	...	...	7	...	...	...	...	7
	TOTAL GOLD	13	13	...	...	13	1	...	1	2	15
CHROMITE	Baluchistan	1	1	...	...	1	...	...	...	1	1
GRAND TOTAL, ALL MINERALS		126	111	16	...	127	20	4	1	25	152	

APPENDIX II—*contd.*

Table No. 10.

Fatal accidents and deaths classified according to causes.

CAUSES OF ACCIDENTS.	1909.				
	Number of separate accidents.	DEATHS.			TOTAL.
		Adult males.	Adult females.	Children (under 13).	
BELOW GROUND.					
Explosions of fire-damp	3	6	...	...	6
Falls in Mines.					
Falls of roof	22	29	2	...	31
„ „ side	23	20	6	...	26
TOTAL	45	49	8	...	57
In Shafts.					
Overwinding	1	1	...	...	1
Ropes and chains breaking	1	2	...	...	2
Whilst ascending or descending by machinery	7	7	...	...	7
Falling into the shaft from the surface	1	1	...	...	1
Falling from part of the way down	6	11	...	...	11
Things falling from the surface	2	2	...	...	2
Things falling from part of the way down	2	2	...	...	2
Miscellaneous	3	4	...	...	4
TOTAL	23	30	...	...	30
Miscellaneous below ground.					
By explosives	5	5	...	...	5
Irruptions of water or falling into water	3	3	...	...	3
Haulage	15	14	2	...	16
By underground machinery . . . . .	...	...	...	...	...
Sundries underground	10	4	6	...	10
TOTAL	33	26	8	...	34
TOTAL BELOW GROUND	104	111	16	...	127
ABOVE GROUND.					
By surface machinery	3	3	...	...	3
On surface railways and tramways	6	5	1	...	6
Miscellaneous on surface	13	12	3	1	16
TOTAL ABOVE GROUND	22	20	4	1	25
TOTAL BELOW AND ABOVE GROUND	126	131	20	1	152

APPENDIX II—*contd.*

Table No. 11.

ACCIDENTS, 1909.

Classified according to cause and mineral worked.

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.	Explosives.	Suffocation by gases.	Irruptions of water or falling into water.	Haulage.	Miscellaneous below ground.	Surface.	Total deaths.	Below ground.	Above ground.	Below and above ground.
Coal	97	6	29	19	19	3	...	3	15	10	15	119	1.48	.38	1.08
Mica	5	..	2	5	..	..	..	..	..	..	..	7	1.14	..	.70
Manganese	6	..	..	1	..	..	..	..	1	..	4	6	.25	1.42	.55
Gems :	2	..	..	..	..	..	..	..	..	..	2	2	..	2.72	1.44
Slate	2	..	..	..	..	..	..	..	..	..	2	2	..	5.61	2.77
Gold	13	..	..	..	11	2	..	..	..	..	2	15	8.93	2.33	6.38
Chromite	1	..	..	1	..	..	..	..	..	..	..	1	166.66	..	62.5
Total 1909	126	6	31	26	30	5	..	3	16	10	25	152	1.40	.49	1.08
Total preceding year	135	22	57	31	27	8	..	2	22	5	20	194	1.70	.32	1.18
Difference	-9	-16	-26	-5	+3	-3	..	+1	-7	+5	+5	-42	-.30	+.17	-.10

Table No. 12.

Statement of Prosecutions instituted under the Indian Mines Act (VIII of 1901) during the year ending 31st December 1909.

PROVINCE.	District.	Number of Prosecutions.	Number of persons prosecuted.	Number convicted.	REMARKS.
Bengal	Asansol	1	1	1	Under rules framed under sec. 20 of the Indian Mines Act, 1901.

APPENDIX II—contd.

Table No. 13.

Number of Inspections by District and other Officers, 1909.

DISTRICT AND MINERAL AREA.		NUMBER OF MINES INSPECTED.		
		Once.	Twice.	More than twice.
COAL.				
Bengal—				
	Sonthal Parganas	1	...	...
	Burdwan	1	...	...
	Bankura . . . . .	...	2	...
	Manbhum	1	1	...
	Birbhum	1	...	...
	Manbhum, Jharia	2	...	...
	Hazaribagh, Giridih	1	...	...
	„ Bokaro-Ramgarh	1	...	...
	TOTAL	8	3	...
Panjab, Jhelum . . . . .		...	1	...
Baluchistan	{ Loralai	1	...	...
	{ Kalat, Mach and Digari . . . . .	...	1	...
	{ Quetta, Sor Range . . . . .	...	...	3
	TOTAL	1	1	3
	TOTAL AT COAL MINES	9	5	3
MICA.				
Bengal, Gaya		1	...	...
Madras—Nellore		13	1	...
	TOTAL AT MICA MINES	14	1	..
MANGANESE.				
Central Provinces, Nagpur		1	...	...
LIMESTONE.				
Central Provinces		3	1	...
SALT.				
Panjab, Jhelum		1	...	...
GEMS.				
Burma, Mogok		1	...	...
SLATE.				
Bengal, Monghyr		1	...	...
IRON.				
Bengal, Singhbhum		1	...	...
	GRAND TOTAL	31	7	3

APPENDIX II—contd.

Table No. 14.

Mines opened and closed during the year ending 31st December, 1909.

PROVINCE.	District.	Number of mines opened.	Number of mines closed.	
	A.—COAL.			
BENGAL	Hazaribagh {	Bokaro-Ramgarh	1	2
		Giridih	1
	Manbhum {	Jharia	8	37
		Raniganj	6	17
	Burdwan, Raniganj	8	13	
	Palamau, Daltonganj	1	1	
	Sambalpur, Hingir-Rampur	1	...	
TOTAL		25	71	
PANJAB	Jhelum	1	4	
	Shahpur . . . . .	...	3
	Mianwali . . . . .	...	1
TOTAL		1	8	
CENTRAL PROVINCES	Chhindwara . . . . .	...	4
EASTERN BENGAL AND ASSAM	Lakhimpur	1	...	
BALUCHISTAN	Quetta, Sor Range	1	...	
	Kalat, Mach and Digari	2	...	
	Loralai . . . . .	...	1
TOTAL		3	1	
TOTAL (COAL)		30	84	
	B.—MICA.			
BENGAL	Manbhum	1	1	
	Monghyr . . . . .	...	2
	Hazaribagh	79	45	
	Gaya . . . . .	...	2
TOTAL		80	50	
MADRAS	Nellore	13	19	
RAJPUTANA	Ajmer-Merwara	1	...	
TOTAL (MICA) . . . . .	.....	94	69

APPENDIX II—concl'd.

Table No. 14—concl'd.

PROVINCE.	District.	Number of mines opened.	Number of mines closed.
	MANGANESE.		
MADRAS	Vizagapatam . . . . .	...	6
CENTRAL PROVINCES	{ Nagpur	1	...
	{ Chhindwara . . . . .	...	2
TOTAL		1	2
TOTAL (MANGANESE)		1	8
	LIMESTONE.		
CENTRAL PROVINCES	Jabalpur	5	1
	SLATE.		
PANJAB	Gurgaon	1	...
BENGAL	Monghyr	1	...
TOTAL		2	...
	GOLD.		
BOMBAY . . . . .		...	5
	IRON.		
BENGAL	Singhbhum	1	...
	WOLFRAMITE.		
CENTRAL PROVINCES	Nagpur	1	...
	STEATITE.		
CENTRAL PROVINCES	Jabalpur	2	...
	BAUXITE.		
CENTRAL PROVINCES	Jabalpur	1	1

APPENDIX III.

Table No. 1.

Inspections and enquiries made under Section 5 of the Land Acquisition (Mines) Act, 1885, during the year ending 31st December 1909.

Registered number.	Name of mine and description of land acquired.	Name of the owner of the mine.	Date of gazetted declaration.	Name of Inspector making the enquiry.
1	Sitalpur Coal Mine— Sanctoria Branch of the Bengal Nagpur Railway.	Bengal Coal Co., Ld.	23rd April 1909	G. C. Leach.
64	Sudamdih Coal Mine— Pathurdih Link of the Bengal Nagpur Railway.	Empire Coal Co., Ld.	7th June 1909, and 4th October 1909.	G. F. Adams.
87	Kendwadih Coal Mine— Jamadoba Branch of the Bengal Nagpur Railway.	Hariladih Coal Co., Ld.	4th March 1910	Ditto.
118	Bhutgoria Coal Mine— Jamadoba Branch of the Bengal Nagpur Railway and certain sidings taking off from it.	Aldih Coal Co., Ld.	22nd July 1909	ditto.
121	Jharia Khas Coal Mine— Surataur siding of the East Indian Railway.	Standard Coal Co., Ld.	30th July 1909	Ditto.
122	Jharia Khas Coal Mine— No. 3 siding of the Bengal Nagpur Railway.	Ditto	20th July 1909	Ditto.
124	Akhalpur Coal Mine— Toposi-Baraboni relieving line of the East Indian Railway and sidings.	Hariladih Coal Co., Ld.	2nd December 1909	J. R. R. Wilson.
125	Sendra Coal Mine— Dhanbaid-Katrasgarh main line of the Jharia Branch of the East Indian Railway.	Sendra Coal Co., Ld.	9th August 1909	G. F. Adams.
127	Sijua Coal Mine— Sijua siding of the East Indian Railway.	Sijua Coal Co., Ld.	2nd July 1909	Ditto.
128	Raghunathbatti Coal Mine— Sitarampur-Baraboni line of the East Indian Railway.	Sudih Coal Co., Ld.	12th July 1909	G. C. Leach.
129	Tetturia Coal Mine— Tetturia assisted siding of the East Indian Railway.	New Tetturia Coal Co., Ld.	...	G. F. Adams.
130	Budruchak Coal Mine— Mudidih-Angarpatra siding (Southern alignment) of the East Indian Railway.	Budruchak Coal Mining Co., Ld.	26th July 1909	J. R. R. Wilson.
133	Jotejanaki Coal Mine— Prankissen extension of the Singaran siding, Ondal Loop, East Indian Railway.	P. K. Chatterji	3rd August 1909	R. R. Simpson.
134	Nudkharuki Coal Mine— Katras-Khanudih extension of the Jharia Branch of the East Indian Railway.	Auckland Coal Co., Ld.	2nd December 1909	J. R. R. Wilson.

APPENDIX III—*contd.*Table No. 1—*contd.*

Inspections and enquiries made under Section 5 of the Land Acquisition (Mines) Act, 1885, during the year ending 31st December 1909 - *contd.*

Registered number.	Name of mine and description of land acquired.	Name of the owner of the mine.	Date of gazetted declaration.	Name of Inspector making the enquiry.
135	Nuni Coal Mine— Sitarampur-Baraboni Branch of the East Indian Railway.	Damra Coal Co., Ld.	21st January 1910	R. R. Simpson.
136	Gararia Coal Mine— Dhanbaid-Katrasgarh Branch of the East Indian Railway.	Tribhuban Das Howji.	15th March 1910	J. R. R. Wilson.
137	Sutikdih Coal Mine— Bengal Nagpur Railway and assisted siding off that Railway.	Sutikdih Coal Co., Ld.	...	Ditto.
138	Jairamdanga Coal Mine— Ondal-Sitarampur Loop of the East Indian Railway.	New Birbhum Coal Co., Ld.	25th November 1909	R. R. Simpson.
139	South Gobindpur Coal Mine— Gobindpur siding, Katras-Khanudih extension of the Jharia Branch, East Indian Railway.	South Gobindpur Collieries, Ld.	13th September 1909	J. R. R. Wilson.
140	Joyrampur Coal Mine— Jinagora Branch siding No. 1 of the East Indian Railway.	Khimji Moorji & Co.	16th September 1909	Ditto.
141	Kusunda Coal Mine— Damuda Branch and siding of the East Indian Railway.	Patel & Co.	2nd December 1909	Ditto.
142	Bhowra Coal Mine— Bhowra Branch of the Bengal Nagpur Railway.	Eastern Coal Co., Ld.	6th September 1909	G. F. Adams.
143	Central Kurkend Coal Mine— Khoira-Kurkend Branch of the East Indian Railway.	Central Kurkend Coal Co., Ld.	18th October 1909	J. R. R. Wilson.
144	Kusunda Coal Mine— Damuda Branch and its sidings of the East Indian Railway.	Kusunda and Naya- di Collieries, Ld.	.....	G. F. Adams.
145	Kurkend Coal Mine— Kurkend siding extension and assisted siding for the East Kurkend Coal Company's Kurkend Colliery, Damuda Branch, East Indian Railway.	Marine Coal Co., Ld.	2nd October 1909	J. R. R. Wilson.
146	Lodna Coal Mine— Jinagora siding off the Damuda Branch of the East Indian Railway.	Lodna Colliery Co., Ld.	.....	Ditto.
147	Nandi Coal Mine— Extension of the Nandi assisted siding of the East Indian Railway.	Adjai Coal Co., Ld.	.....	R. R. Simpson.
148	Baraboni Coal Mine— Ghusik and Muslia Colliery siding, Domohani Branch, East Indian Railway.	Ghusik and Muslia Collieries, Ld.	.....	J. R. R. Wilson.

APPENDIX III—*contd.*Table No. 1—*concl.*

Inspections and enquiries made under Section 5 of the Land Acquisition (Mines) Act, 1885, during the year ending 31st December 1909—*concl.*

Registered number.	Name of mine and description of land acquired.	Name of the owner of the mine.	Date of gazetted declaration.	Name of Inspector making the enquiry.
150	Bhuggutdih Coal Mine— Damuda Branch, Jharia extension of the East Indian Railway.	Bengal Nagpur Coal Co., Ltd.	21st January 1910	J. R. R. Wilson.
151	Jamadoba Coal Mine— Extension of the Joyrampur Branch, Jerapuka and Dongri sidings of the Bengal Nagpur Railway.	Indian Collieries Syndicate, Ltd.	8th March 1910	G. F. Adams.
152	Kustore Coal Mine— Alkusa siding of the East Indian Railway.	Kusunda and Naya-di Collieries, Ltd.	.....	Ditto.
153	Tettulia Coal Mine— Katras-Khanudih extension of the East Indian Railway and a siding taking off it.	Haresmal Ram Chandra.	.....	J. R. R. Wilson.
154	Gararia Coal Mine— Katrasgarh Branch of the East Indian Railway.	Ramji Bechar Dass	.. ...	Ditto.

Table No. 2.

Inspections and enquiries made under Section 11 of the Land Acquisition (Mines) Act, 1885, during the year ending 31st December 1909.

Registered number.	Name of mine and description of land acquired.	Name of the owner of the mine.	Date of declaration.	Name of Inspector making the enquiry.
16	Panehgatchia Coal Mine— Ikrah Branch of the East Indian Railway.	Lutchipur Coal Co., Ltd.	3rd August 1909	G. C. Leach.
29	Bansjora Coal Mine— Dhanbaid-Katrasgarh Branch of the East Indian Railway.	Bansjora Coal Co., Ltd.	2nd September 1909	G. F. Adams.
40	Mouzra Coal Mine— Ondal Loop, Toposi Branch of the East Indian Railway.	Basanti Oakdene Coal Co., Ltd.	22nd September 1909	R. R. Simpson.
41	Noonoodih Coal Mine— Noonoodih Colliery siding off the Jamadoba Loop of the Bengal Nagpur Railway.	Bengal Iron and Steel Co., Ltd.	29th July 1909	G. C. Leach.
63	Shampur Coal Mine— Shampur siding off the Jharia Branch of the East Indian Railway.	Shampur Coal Co., Ltd.	.....	Ditto.
99	Tentulia Coal Mine— Katras-Khanudih extension of the East Indian Railway.	Tentulia Colliery Co.	30th March 1909	G. F. Adams.

APPENDIX III—contd.

Table No. 3.

List of plans of abandoned and discontinued mines received during the year 1909.

Registered number.	Name and situation of mine.	Name and number of seam.	Name of mineral worked.	Name of owner.	Date of abandonment or discontinuance.
40	Bhowra Coal Mine, Jharia P. O.	No. 1 Seam (Jharia)	Coal	Eastern Coal Company, Ltd.	28th June 1907.
41	Phularitand Coal Mine, Katrasgarh P. O.	No. 14 Seam	Coal	Phularitand Coal Co., Ltd.	8th April 1908.
42	Raghuathchak Coal Mine, Raniganj P. O.	Raghuathchak Seam	Coal	Jagganath Marwari	23rd December 1908.
43	Damra Coal Mine, Kalipahari P. O.	Ghusick Upper Seam	Coal	Damra Coal Co.	October 1908.
44	Basantipur Coal Mine, Chowkidanga P. O.	Basantipur or Mamudpur Seam.	Coal	Basanti Oakdene Coal Co.	15th February 1909.
45	Rajhara Coal Mine, Rajhara P. O.	Rajhara Seam	Coal	Bengal Coal Co., Ltd.	19th January 1909.
46	Sonachora Coal Mine, Raniganj P. O.	Sonachora Seam	Coal	Sahana Coal Co.	21st March 1908.
47	Govindpur Coal Mine, Katrasgarh P. O.	No. 10 Seam	Coal	Govindpur Coal Co., Ltd.	13th December 1908.
48	Akhalpur Coal Mine, Nandi P. O.	Koithi Seam	Coal	Hariladh Coal Co., Ltd.	July 1908.
49	Sinidih Coal Mine, Katrasgarh P. O.	No. 12 Seam	Coal	Sinidih Coal Co., Ltd.	19th February 1909.
50	Pipratand Coal Mine, Katrasgarh P. O.	Upper Seam	Coal	Pipratand Coal Co., Ltd.	20th February 1909.
51	Joyrampur Coal Mine, Jharia P. O.	No. 10 Seam	Coal	B. R. & Co.	4th April 1909.
52	Bhutdoba Coal Mine, Kalipahari P. O.	Bhutdoba or Upper Kalipahari Seam.	Coal	Bhagirathi Coal Co.	March 1909.
53	West Gopalchak Coal Mine, Kusunda P. O.	Nos. 16 and 17 Seams	Coal	Gopalchak Coal Co., Ltd.	10th May 1909.
54	Dhobidih Coal Mine, Giridih P. O.	Hill Seam	Coal	Bengal Giridih Coal Co., Ltd.	17th April 1909.
55	Niga Valley Coal Mine, Kalipahari P. O.	Top Seam	Coal	Niga Valley Coal Co.	About May 1908.
56	Loyabul Coal Mine, Bansjora P. O.	No. 17 Seam	Coal	Barakar Coal Co., Ltd.	7th March 1909.
57	Ditto	No. 15 Seam Top and Bottom Sections.	Coal	Ditto	17th February 1908.
58	Kanchka Coal Mine, Kalipahari P. O.	Ghusick Seam	Coal	Damra Coal Co., Ltd.	June 1909.
59	Damra and Kanchka Coal Mines, Kalipahari P. O.	Kushadanga or Ghusick Bottom Seam.	Coal	Damra Coal Co., Ltd.	May 1909.
60	Busserya Coal Mine, Kusunda P. O.	No. 13 Seam	Coal	Busserya Coal Co., Ltd.	7th July 1907.
61	Kendwadih Coal Mine, Katrasgarh P. O.	Nos. 7 and 8 Seams	Coal	C. M. Company	.....
62	Pandedih Coal Mine, Katrasgarh P. O.	No. 8 Seam	Coal	Mit Naryan Singh and others.	27th March 1909.
63	Jogta Coal Mine, Sijua P. O.	Nos. 12 and 15 Seams	Coal	Agabeg Brothers	30th April and 25th June 1909.

APPENDIX III—*contd.*Table No. 3—*contd.*List of plans of abandoned and discontinued mines received during the year 1909—*concl'd.*

Registered number.	Name and situation of mine.	Name and number of seam.	Name of mineral worked.	Name of owner.	Date of abandonment or discontinuance.
64	Egarcoor Fireclay Mine, Chirkunda P. O.	No. 1 Incline . . .	Fireclay .	Barn & Co.	16th February 1909.
65	Sinidih Coal Mine, Katrasgarh P. O.	Nos. 9, 10 and 11 Seams .	Coal .	Sinidih Coal Co., Ld. .	Nos. 9 and 10—9th July 1909 and No. 11—10th June 1909.
66	Kalipahari Coal Mine, Kalipahari P. O.	Kalipahari Top Seam or Bhutdoba Seam.	Coal .	K. D. Singh & Co. . . .	March 1909.
67	New Ghusik, Kalipahari P. O.	Ghusick Seam . . .	Coal .	B. D. Mukherji	24th April 1909.
68	Egarcoor Coal Mine, Raniganj P. O.	.....	Coal .	Barn & Co.	31st May 1909.
69	Bengal Bhatdih Coal Mine, Katrasgarh P. O.	Top and Middle Seams .	Coal .	Bengal Bhatdih Coal Co., Ld.	14th May 1909.
70	Chinchuria Coal Mine, Asansol P. O.	Bottom Seam . . .	Coal .	Baraboni Coal Concern, Ld.	22nd May 1909.
71	Mandra Coal Mine, Nowagarh P. O.	Nos. 8, 9 and 10 Seams .	Coal .	Mandra Coal Co.	10th March 1909.
72	Kantapahari Coal Mine, Katrasgarh P. O.	No. 10 Seam	Coal .	A. R. Mandol	5th June 1909.
73	Joyramchak Coal Mine, Asansol P. O.	Gopalpur Seam . . .	Coal .	Oriental Coal Co.	2nd July 1909.
74	Koolustore Coal Mine, Chowkidanga P. O.	Benakuri Seam . . .	Coal .	Koolustore Coal Co., Ld. .	December 1908.
75	Dherewali Coal Mine, Dalwal P. O.	Dherewali Adit . . .	Coal .	P. Bholu Nath	February 1909.
76	Chatterwal Coal Mine, Dalwal P. O.	East and West Adits .	Coal .	Ditto	East—March 1909. West—January 1909.
77	Wahgroowali Coal Mine, Dalwal P. O.	Wahgroowali Adit . .	Coal .	P. Bholu Nath	January 1908.
78	Chiti Dand Coal Mine, Abbotabad P. O.	No. 1 Wadala No. 4, East Chiti Dand.	Coal .	Panjab Coal Company . .	No. 1 Wadala—12th February 1909. No. 4 East Chiti Dand—5th March 1909.
79	Murulidih Coal Mine, Katrasgarh P. O.	Lower Seam	Coal .	Bengal Coal Co., Ld. . .	1st November 1908.
80	Chandrabad Coal Mine, Jharia P. O.	Nos. 7 and 8 Seams . .	Coal .	Ranjus Agarwalla	1st January 1909.

Table No. 4.

SIBPUR COLLEGE.

THE MINING CLASSES.

CIRCULAR.

THESE classes are attached to the Overseer Section of the Apprentice Department.

General explanation.—The Mining Classes 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 for the examinations of mine managers, as required by the Indian Mines Act, VIII of 1901.

APPENDIX III—*contd.*Table No. 4—*contd.*

The course at Sibpur for regular mining students will extend over four years. At the end of the second year the sub-overseer examination is held. The specialised instruction in mining at Sibpur is given in the third and fourth years of the college course, according to the attached syllabus, and the diploma examination takes place at the end of the fourth year.

The classes are open to both regular students and special students.

Regular students—Are those who have qualified for admission by passing the sub-overseer examination of the Civil Engineering College, or an equivalent test of other college.

Their age limits are 17 years minimum and 19 years maximum on admission.

Special students.—Persons resident in Bengal, who have been employed upon mines, will be admitted as special students under the following conditions:—

- (a) that they have completed at least two years' practical work upon a mine; and
- (b) that they have passed (i) the B. Final Examination, (ii) the Matriculation or Entrance Examination of any Indian University, or (iii) any test equivalent to the Middle School Examination of the Code for European Schools.

There is no limit of age for such special students.

All applications for admission from outside candidates should be posted so as to reach the Principal's office by 1st April.

Regular students should apply in the proper form available from the Principal's office.

Special students must provide, (a) proof of educational attainments, and (b) a statement showing the nature and extent of their employment upon mines and the period thereof, supported by certificates from the mine managers under whom they have worked.

SCHOLARSHIPS AWARDED BY THE GOVERNMENT OF BENGAL.

For regular students.—Two scholarships of Rs. 12 monthly and three of Rs. 6 are provided. These will be awarded on the results of the sub-overseer examination by the Director of Public Instruction on the recommendation of the Principal. Students trained at the Civil Engineering College or any affiliated Technical School in Bengal are eligible for these scholarships. If they are on the Reduced fee list, they will be charged full tuition fees.

For special students.—Two scholarships of Rs. 150 monthly for European candidates and two of Rs. 50 monthly for Indian candidates, each tenable for two years, are offered. These will be awarded annually by the Director of Public Instruction on the recommendation of the Mining Advisory Board.

These scholarships are available for candidates who have had at least two years' actual experience of colliery work. They must have passed the Calcutta University Entrance Examination or an equivalent. For Europeans the Middle Scholarship Examination of the Code for European Schools or equivalent is accepted.

There is no limit of age.

Application for these scholarships should be made to the Principal of the Civil Engineering College, when applying for admission.

There is no residential accommodation available at the college for special students, scholarship-holders or otherwise: they must make their own arrangement for board and lodging, and must attend the college daily from 8 a.m. A mid-day meal will be supplied if desired at the college at a definite monthly charge to be fixed by the Principal.

SCHOLARSHIPS AWARDED BY THE GOVERNMENT OF EASTERN BENGAL AND ASSAM.

For regular students.—Three of the value of Rs. 15, one being reserved for each of the following classes, namely, European, Muhammadan, Hindu confined to students domiciled in Eastern Bengal and Assam.

For special students qualified as above.—One of Rs. 30 for an European. Two of Rs. 20— one for a Muhammadan and one for a Hindu. The rates for special students are fixed on the understanding that they will reside at the college hostel. If accommodation is not available, Government are prepared to consider an increase. Applications for these scholarships to be made to the Director of Public Instruction of Eastern Bengal and Assam.

The session begins each year on or about the first Monday in May. The college closes for the long vacation about the first week of August and re-opens about the end of October.

Special students must pass all college test examinations and must appear at the diploma examination held at the end of the course.

The following fees will be charged from special students:—

Caution money deposit.—Rs. 5, which will be returned on leaving the college after deducting any charge-dues owing.

Tuition fee.—Rs. 3 monthly payable for 12 months in the year.

Mid-day meal.—Rs. 10 monthly for Europeans, and Rs. 5 for Indians.

APPENDIX III—*contd.*Table No. 4—*concl'd.*

All fees become due on the 15th of the month.

Regular students, who must be residents, will be charged in full the fees noted in the Rules of the Apprentice Department.

A camp of practical mining and surveying will be held for six weeks in the cold weather of each session in the colliery districts.

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 rocks; 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, headgear, ropes, safety appliances.

Mining legislation.

Section A.—(One lecture per week.)

Methods of working coal; shaft 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 under-ground 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 overhead 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; adit 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.

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, cooking, 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.

Table No. 5.

MINING INSTRUCTION IN BENGAL.

Preliminary.—The scheme of instruction is designed to afford facilities for persons employed in coal mines to be trained in the Principles of Mining.

APPENDIX III—*contd.*Table No. 5—*contd.*

The following centres have been established and Sub-Committees appointed:—

RANIGANJ DISTRICT.

<i>Dishargarh Centre.</i>	<i>Charanpur Centre.</i>
Mr. G. C. Leach.	Mr. R. R. Simpson.
” Wm. Miller.	” R. Mitchell.
” G. F. Scott.	” E. M. Patterson.
” W. McFarlane.	” A. Russell.

JHARIA DISTRICT.

<i>Jharia Centre.</i>	<i>Sijua Centre.</i>
Mr. G. F. Adams.	Mr. G. F. Adams.
” J. J. Turnbull.	” H. C. Veasey.
” A. Gregory.	” E. H. Bennertz.
” A. S. Thomson.	” S. McMurtrie.

The Mining Instructor will visit each centre once a week.

The course of instruction, consisting of about 25 lectures, will commence in November 1909 and continue to the beginning of the rainy season, 1910.

An examination will be held at the end of the course.

A candidate who passes the examination will receive a certificate recording his success. No candidate, however, will be permitted to sit for examination unless he has attended fifty per cent. of the lectures.

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.

PART I.

Geology.—General structure of the crust of the earth: Definitions and descriptions of fault, dyke, outcrop, dip, strike, unconformity, etc.; composition and properties of coal; special reference to the coal measures in India: Importance of recording results of observations.

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

Boring and Winning.—Different systems of boring; choice of methods; cost of boring. Winning coal by inclines, adits, shafts, shafts and crosscut.

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; lining the shafts and scaffolding; sinking pit banking arrangements, bowks, water-barrels, bull chain and hook, etc. Special difficulties in sinking and how to deal with them.

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

Thick coal.—Methods of working in South Staffordshire and Warwickshire, in Upper Silesia and France; methods of working thick seams by Longwall, by inclined slices, and by horizontal slices, also the Rabatage System.

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.

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.

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

Safety lamps.—Theory of the safety lamp, Sir Humphrey Davy's Experiment; the Davy lamp, the Clanny and Thomas and Williams lamps, the Marsaut and Mueseler lamps; firedamp detectors.

PART II.

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 III—*contd.*Table No. 5—*conold.*

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

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.

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

Transmission of power by steam, compressed air, and electricity; discussing the relative merits of each system.

Coke.—Its production and composition; different types of ovens; recovery of by-products.

Table No. 6.

DEPARTMENT OF MINES IN INDIA.

Regulations made by the Board of Examiners under Rule 30 of the rules applying to coal-mines made under Section 20 of the Indian Mines Act, 1901, for the conduct of examinations for managers' certificates of competency.

(1) No member of the Board of Examiners shall act as a local examiner, except in emergent cases.

(2) When possible, one or more members of the Board of Examiners shall attend every examination on at least one of the days.

(3) So far as is practicable, the local examiners shall be:—

(a) An Inspector of Mines, who shall be Secretary to the local examiners.

(b) Two Mining Engineers or Colliery Managers who must be the holders of first class certificates. Provided that a Mining Professor may be appointed instead of one of the Mining Engineers or Managers.

(4) The remuneration of each local examiner shall be ₹150 for each examination, and a capitation fee of ₹2 for each first class candidate and ₹1 for each second class candidate examined, and travelling expenses and halting allowances on the first class scale under Civil Service Regulations; but an Inspector of Mines, acting as a local examiner, shall not be entitled to any fee or remuneration whatsoever, beyond the travelling expenses and halting allowances due to him in his official capacity.

(5) The subjects for examination shall be:—

(a) *Arithmetic and handwriting.*

(b) *Practical and theoretical coal-mining*, including surface and underground arrangements, sinking, timbering, ventilation, gases met with in coal mines, a knowledge of plans, surveying and levelling, and of the various instruments used in mining. Questions may also be asked upon geology, sanitation, hydraulics, explosives, safety lamps and similar subjects. The candidates may also be required to show how to arrange the ventilation and haulage of a mine on a given plan.

(c) *Practical mechanics*, including steam, steam-engines, steam-boilers, pumps and strength of materials; and questions may be asked upon electricity and compressed air as applied to coal-mining.

(d) *The Indian Mines Act, 1901*, and rules made under the Act.

(6) The examinations shall be both written and oral, and the subjects and conditions shall be the same for candidates for both classes of certificates; but the examination questions shall be made suitable for each class of certificate.

(7) The following shall be the maximum number of marks given for each subject:—

SUBJECT.	FIRST CLASS.			SECOND CLASS.		
	Papers.	Viva voce.	Total.	Papers.	Viva voce.	Total.
(a) Arithmetic and handwriting	50	...	50	50	...	50
(b) Mining	160	60	220	140	80	220
(c) Mechanics	110	40	150	100	50	150
(d) Indian Mines Act	60	20	80	50	30	80
TOTAL	380	120	500	340	160	500

APPENDIX III—*contd.*Table No. 6—*concl'd.*

(8) No candidate who fails to obtain 66 per cent. of the total number of marks, or 33 per cent. in either of the subjects of Mining or Mechanics, shall be passed by the examiners, and if a candidate fails to obtain 33 per cent. of the marks given for either of the subjects of Arithmetic and Handwriting or the Indian Mines Act, any marks he may have obtained in such subjects shall not be included when the total is determined.

(9) Before each examination each candidate shall declare whether he presents himself for a first or second class certificate. No candidate for a second class certificate shall be eligible at that examination for a first class certificate, but a candidate for a first class certificate, who does not reach the necessary standard, may, nevertheless, at the discretion of the local examiners, be recommended to the Board of Examiners for a second class certificate, if, in their opinion, he has done sufficiently well to deserve it.

(10) The Secretary to the local examiners shall report, by registered post, the result of the examination, giving the number of marks obtained by each candidate in each subject, to the President of the Board of Examiners within one month of the close of the examination.

(11) The questions which the local examiners intend to put in the examination papers shall be submitted in draft to the Board of Examiners, for approval, at least six weeks before the date of the examination.

(12) At least one examination shall be held annually in the Bengal coalfields; and in other parts of India examinations will be held whenever, in the opinion of the Board of Examiners, the number of candidates in a coal-mining centre justifies the holding of an examination.

Table No. 7.

List of holders of certificates as Managers of Coal Mines in British India.

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

FIRST CLASS.

NAME.	No. of Indian certificate.	Date of Indian certificate.	No. of foreign certificate.	Date of foreign certificate.
Hutton-Williams, William	135	1st February 1909 .	1376	3rd June 1898.
Wilson, Hugh	136	Ditto .	2682	6th September 1905.
Robinson, John	137	Ditto .	1817	27th February 1901.
Mackenzie, Allan Cameron	138	Ditto .	2643	5th June 1905.
Simmons, William	139	Ditto .	1541	16th June 1899.
Lascelles, Walter Reginald	140	Ditto .	3209	29th June 1908.
Argyle, John Basil	141	Ditto .	3054	15th November 1907.
*Schreiber, F.	142	Ditto .	...	17th June 1904.
Greenwell, George Harold	143	20th February 1909 .	2850	17th June 1906.
Stead, Alfred	144	17th August 1909 .	3260	3rd September 1908.
Riddle, John Blenkinsopp	145	Ditto .	2765	27th February 1906.
Newton, Leonard	146	Ditto .	1793	3rd January 1901.
Emmerson, Thomas	147	20th December 1909 .	2622	5th June 1905.
SECOND CLASS.				
Stevenson, John	17	1st February 1909 .	6320	14th June 1907.
Mackenzie, John	18	20th February 1909 .	3494	23rd July 1898.

* Holder of a German Proficiency certificate.

APPENDIX III—*contd.*Table No. 7—*contd.*List of holders of certificates as Managers of Coal Mines in British India—*contd.*

(b) Certificates of Service.

FIRST CLASS.

NAME.	No. of certificate.	Date of certificate.	REMARKS.
Lucas, Johannes Catchatoor	132	17th August 1909.	
Forbes, Edward Neville	133	Ditto.	
Din, Ahmed	134	12th October 1909.	

SECOND CLASS.

Mookerjee, Naresh Chandra	183	1st February 1909.	
Sen-Gupta, Kamakhya Charan	184	Ditto.	
Roy, Gopal Chandra	185	17th August 1909.	
Das, Thakar	186	20th December 1909.	

(c) Certificates of Competency.

FIRST CLASS.

Castles, George Gordon	40	22nd March 1909.	
Rooke, Reginald George	41	Ditto.	
Malcolm, Robert Wright	42	Ditto.	
Sarkar, Surendra Nath	43	Ditto.	
Bullock, James	44	Ditto.	
Nandi, Bhairab Charan	45	Ditto.	
Renaux, Harry Walter	46	20th December 1909.	
Devereux, Osmond Nicholas	47	Ditto.	
Briggs, William Alexander	48	Ditto.	
Dutta, Ashutosh	49	Ditto.	
Maughan, John Victor	50	Ditto.	
Chatterjee, Thakaram	51	Ditto.	
McInerney, Michael Edward	52	Ditto.	
Bhar, Ananta Ram	53	Ditto.	

APPENDIX III—*concl'd.*Table No. 7—*concl'd.*List of holders of certificates as Managers of Coal Mines in British India—*concl'd.*(c) Certificates of Competency—*concl'd.*

SECOND CLASS.

NAME.	No. of certificate.	Date of certificate.	REMARKS.
Devereux, Osmond Nicholas	37	22nd March 1909.	
Chatterjee, Thakaram	38	Ditto.	
Sanyal, Satis Chandra	39	Ditto.	
Bhattacharjee, Guru Das	40	Ditto.	
Mitchell, Phillip Thomas	41	Ditto.	
Chakravarti, Karali Charan	42	Ditto.	
Wilkinson, Ronald	43	20th December 1909.	
Asheroft, Charles Edwin	44	Ditto.	
Pandit, Prokas Chandra	45	Ditto.	
Milchem, Ernest Edgar	46	Ditto.	
Mitra, Atulsasi	47	Ditto.	
Bhattacharyya, Suratha Natha	48	Ditto.	
Mitchell, Lionel Patrick	49	Ditto.	
Bridgewater, George	50	Ditto.	
De Lanougerede, Percival Ernest	51	Ditto.	
Ghosh, Ram Sharan	52	Ditto.	

Table No. 8.

List of Universities and Colleges in England and India approved by the Governor General in Council for the purposes of Rules 32 and 33 of 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.

APPENDIX III—*concl.*Table No. 8—*concl.*

List of Universities and Colleges in England and India approved by the Governor General in Council for the purposes of Rules 32 and 33 of the Indian Mines Act, 1901—*concl.*

Name of Institution and Degree or Diploma.	Date.
University of Durham in respect of its Degree of B.Sc. in Mining	21st December 1903.
Durham College of Science in respect of its Diploma in Mining .	29th June 1904.
University of Glasgow in respect of its Degree and Diploma in Mining.	28th September 1904.
Glasgow and West of Scotland Technical College in respect of its Diploma in Mining.	28th June 1904.
University of Leeds in respect of its Degree of B.Sc. in Mining and Diploma in Mining.	21st November 1904.
University of London in respect of its B.Sc. Degree in Mining for Internal Students, subject to the Degree being endorsed by the University with a certificate of four months' practical experience in a mine.	9th June 1905.
University of London in respect of its B.Sc. Degree in Mining for External Students, subject to the Degree being endorsed by the University with a certificate of four months' practical experience in a Mine.	7th August 1906.
Royal School of Mines in respect of its Associateship in Mining .	24th March 1904.
University of Oxford in respect of its Diploma B. (for Colliery Engineers) in Scientific Engineering and Mining Subjects.	11th February 1905.
University College of Sheffield in respect of its Diploma in Mining.	15th July 1904.
University College of South Wales and Monmouthshire in respect of its Diploma in Mining.	19th April 1904.
Wigan Mining and Technical College in respect of its Diploma in Mining.	26th August 1904.
Civil Engineering College, Sibpur, in respect of its Diploma in Mining.	22nd February 1907.
Merchant Venturers' Technical College, Bristol, in respect of its Diploma in Mining Engineering.	5th October 1905.
Victoria University of Manchester in respect of its Degree and Certificate of Mining.	14th February 1906.
University College of Nottingham in respect of its Diploma in Mining Engineering.	25th 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.

APPENDIX III.

Table No. 9.

List of Inspection Circles.

No. 1 Circle.	No. 2 Circle.	No. 3 Circle.
<p>(a) All mines in the districts of Palamau, Gaya, Monghyr, Singhbhum, Darjeeling, Ranchi and Sambalpur, and all mines other than coal mines in the district of Hazaribagh, and 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.</p>	<p>(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 in each direction across the district, and all coal mines in the district of Hazaribagh.</p>	<p>(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 and Birbhum.</p>
<p>(b) All mines in Assam.</p>	<p>(b) All mines in Baluchistan.</p>	<p>(b) All mines in the Presidency of Bombay.</p>
<p>(c) All mines in Burma.</p>	<p>(c) All mines in the United Provinces.</p>	<p>(c) All mines in the Central Provinces.</p>
	<p>(d) All mines in the Panjab.</p>	<p>(e) All mines in the Presidency of Madras.</p>
	<p>(e) All mines in Ajmer-Merwara.</p>	

The undermentioned Report, Rules and Forms can be obtained from the :—

Office of the Chief Inspector of Mines in India,
Dhanbaid, E. I. R.

ANNUAL REPORT OF THE CHIEF INSPECTOR OF MINES, INDIA.
ALL RULES FRAMED UNDER SECTION 20 OF THE INDIAN MINES ACT, 1901, IN SHEET
FORM.
DRAFT CODE OF SPECIAL RULES FOR COAL MINES IN ENGLISH AND HINDI.
FORMS USED IN ESTABLISHING SPECIAL RULES.

Messrs. Thacker, Spink & Company, Calcutta.

FORM No. 5. APPLICATION FOR PERMISSION TO MANAGE MORE THAN ONE MINE.
FORM No. 18. NOTICE OF APPOINTMENT OF MANAGER.
FORM No. 20. NOTICE OF ACCIDENT.
FORM No. 24. ANNUAL RETURNS
FORM No. 26. NOTICE OF OPENING A MINE.

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REPORT

OF THE

CHIEF INSPECTOR OF MINES IN INDIA

Under the Indian Mines Act (VIII of 1901)

FOR THE

YEAR ENDING 31st DECEMBER

1909

BY

J. R. R. WILSON, M. I. C. E., F. G. S.
Chief Inspector of Mines in India



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