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 1922

BY

D. PENMAN, B.Sc. (Hons.), M.I.M.E., Offg. Chief Inspector of Mines in India



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Mining and Geological Institute of India—		•							
Membership	•		•		· .	•	•		-
Number of meetings held			•						
""",",", ", in Central Provinces a	nd Bera	r Bra	nch		•			•	:
Award of Government Prize	•	•		•					:
", "Institute Medals	•								1
Removal of headquarters of Institute	•	•	•	•	•	•		•	:
Association of Colliery Managers in India-	•	-				•			
Affiliation to National Association of Colliery Ma	ana <i>c</i> ere i	n Gre	nt Rei	itain					1
Questions dealt with by Council		•			•	•	•	•	5
Land Acquisition (Mines) Act, 1885—							-	-	
Number of cases disposed of									
	•	•	۰,		•	•	•	•	2
Register of applicants for employment holdin Certificates	ig first	Or SCO	cond e	2088	Collie	ery M	anage	rs'	:
· · · · ·	-	-	•	•	•	•	٠	•	4
Official dutics-									
Personnel									
rensonnel	•		•			-			21, 2

	· co:	NTENT8.				-	-	•	
	•						•		PAG
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,,	" 3Number of mince opened and c	losed .	• •	•		•	•	•	3639
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	, 4.—Bengal Engineering College		•	•	•	•	•	•.	91
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APPENDIX I.

STATISTICS OF MINES AND MINERALS.

Table No. 1.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1922.

		1		BER OF	NCMB VINES IN	ER OF SPECTED				AVERAG	E NUM	SER OF	PERSON	S EMPLO	YED DAI	IX IN A	ND ABO	UT THE	MINES.		
		Number of mine		NIS.		O THE	TOTAL				B	10W 6101	JED.			:		ABOTE 6	BOUND.		-
PROVINCE,	District and mineral field.	under the scope of the Act	f Worked	worked	Number	Number	OUTPUT.		MINE	15 ,			OTRI	dits		Total below ground.	Adult	Adult	 Children	i Tritul	Grand total below and above ground.
			chanical power.	by me- chanical power.	mines inspect- ed.	inspec- tions.		Adult males.	Adult females.	Childrep	Total.	Adult males,	Adult females.	Children.	Total.			females.		above ground,	
	· · · ·	j ·			/	ACO	AL. Tons.]			
(Lakhimpur	- 5	•	1	5	13	291,747	1,878	220		2,098					2,098	671	199	83	, 953	3,051
Assam	Naga Hills	. 1		1	1	2	55,903	263			263				••	263	274	16	. 3	293	556
L	Sibsogar	•	 		 	•• 			··	••	·	<u> </u> _	<u> </u>	•• 			••	,•• 	••		··
	Тоты	1	•	2	6	15	347,650	2,141	220	 ·	2,361					2,361	045	215	86	1,246	3,607
	Kalat	•		1			80	20			20	5			. 6	25	5			6	30
Baluchiston	Loralai	•		1	· · ·		. 42	15			15				••	15	20		••	20	35
~	Quetta-Pishin	• •	.	8			6,644	80		•••	89		.		9	98	59			59	157
ι	Sibi-Khost		• 1	5	2	6	33,866	290			200	208	<u> </u>	••	298	588	433		11	486	1,032
•	Тота	. 1	1	15	2	6	40,632	414			414	315	2	••	312	720	617	· · ·	11	528	1,254
	Bankurs, Raniganj	•	k	4	3	4	6,891	50	24		74	1	<u>, </u>	1	11	, 85	35	43		70	161
Bengat	Bizbham "	•	3	4			12,154	110	4		114	, ' 34	1 2	3	57	171	101	75	3	175	
l	Burdwand "	. 27	214	57	223	458	4,309,951	11,646	5,829	17	17,495	5,72	9 3,40	5 47	9,181	26,673	11,243	6,140	820	17,70	0 44,382
	тота	. 28:	216	65	226	462	4,328,986	11,806	5,857	17	17,680	5,77	8 8,42	9 47	9,249	26,929	11,87	7 6,204	82	3 17,96	4 44,898

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STATISTICS OF MINES AND MINERALS-contd.

Table No. 1-contd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals during the year 1922-contd.

1		!	NUMB		MINES IN					VERAG	E NUMB	er of F	ERSONS	EMPLO	YED DAT	ILY IN A	ND ABO	UT THE	MINES,		
Province.	District and mineral field,	Number of mines under the	21M 	(ES,	DURIN TE	G THE AR.	TOTAL OUTPUT.				BELOW OD				··· ····			Above o			1
		scope of the Act.	Worked by me- chanical	Not worked by me-		Number of inspec-			MIN	EBS,			Отн	ER5,		Total below			1	1	- Grand itotal below
		<u> </u>	power.	chanical power.	inspect- ed.	tions.		Adult males.	Adult females.		Total.	Adult males,	Adult females.	Children	Total.	ground.	Adult males.	Adult females.	Children.	Total above ground.	and above ground,
Bibar and Orisca	Hazaribagh { Giridih Jharia Ramgazh Manbhum { Jharia Ramgazh	8 13 11 2 390	3 4 5 199 21	3 9 6 2 101	8 11 12 360	6 21 17 696	Tons. 1,037,17 659,101 187,758 4,565 9,748,541	2,445 3,067 483 24 20,762	2,638 1,272 876 40 16,755	1 14 70 20 179	5,084 4,353 933 84 37,696	173 68 04 8,430	130 14 27 3,802	 14 10 81	312 00 101 12,313	5,390 4,449 - 1,036 84 50,009	2,838 1,815 897 46 22,755	1,330 940 462 7 12,315	383 25 106 24 1,565	4,551 2,780 1,465 77	0,047 7,220 2,501 161
_ `	Palaman, Daltonganj . Sambalpur, Hingir-Rampur . Sonthal Par . gamas. Raniganj .	1 2 5 7	1 1 3 - 4	3	104 1 1 1 3	179	849,051 31,933 08,618 96,612 24,277	2,867 60 80 443 125	1,316 52 191 93	3 10 4	4,186 122 80 634 - 222	805 34 180 166 25	505 7 200 67 27	16 32 	1,386 41 421 233 52	5,572 163 510 867 274	2,825 82 201 201 239	1,613 19 72 114 177	1,363 127 13 14 25	30,035 4,505 114 287 375 441	86,644 10,137 277 797 1,242 715
·	TOTAL	- 561		\$20	505	1,126	12,708,527	R0,365	22,733	307	63,405	10,014	4,788	153	14,955	68,360	31,959	17,049	2,282	61,290	119,650
Central Provinces .	Betul Chanda, Baliarpur Chhindwara, Pench Valley Narsinghpur, Mohpani Yeotmal	- 3 - 8 - 48 - 1 - 2			4	 6 11 4 	994 132,080 453,484 84,996 3,687	14 844 1,862 306 10	11 10 483 	8 165 	28 854 2,510 306 10	19 616 869 609 8	28 205 1,470 418 11	 1 04 	47 912 2,430 1,027 14	78 1,760 4,943 1,333 24	33 674 1,718 540 38	21 149 1,140 157 33	4 61 485 	58 584 3,343 703 71	153 2,650 8,286 2,086 95
	. Total	.] 62	2 20	64 45	15	21	675,841	3,030	504	168	8,708	2,116	2,222	9 5	4,438	8,141	3,009	1,500	550	5,059	18,200

Punjab	Torat	8 - 5 9 9 8 4		9 H 8	• •	2 1	47,832	161	: :							2				 	
KD TOTAL (COA OF DIFFE	Torat	21 23 488 +	-	-	•1	4 63	5,047	6 9	: :	:::	5 9	00 00 07 01 00 07	:::	:::	ନ ଜୁ ଖ ନ ନ	10 84	500 5111 5111	•0 : ;	-2 e7	56. 112 53	1,300 183 113
(D TOTAL (con " OF DIITES	AL) FOR 1922 PERCEDING TEAR		Ì	ន		2	67,190	580	:	:	2	339	:		350	030	162 .		 co	12	1,086
	PRECEDING		466	. 467	106	1,044	18,168,988	48,380	\$0.514	408	78,186	18,574	10,439	502	20,308	107,494	48,565	25,036	3,200	70.801	194.356
		 \$ +	8 9	418	281	1,005	18,359,034	:	;	;	:	:	:	:	:	108,957		28,666			190,041
	· · · · · · · · · · · · · · · · · · ·		କ କ	6)+	+ 185	+ 439	-189,946	:		:	:	 :		:			-1,378	- - - - - - - - - - - - - - - - - - -	+170		- 0, <u>2</u> 94
	•••					B-MICA.	Å						 	<u> </u>	<u> </u>		ĺ	┟─			
	•••						Critte /											<u> </u>			
Bibar and Orima	•	300	5	566	: :	: :	12,105	2,318	825	384	3,527	280	:	340	21	235 217	201	171		783	1,518
•		84	:	61	:	:	-0	H	2	:	18	:	:	:	:	81	9 9	14		3,134	7,877
L Sambalpur	- <u>-</u>		:	-	:	:	:	12	₹	•	30	34	4	a	85	115	:	:	:	 7 :	115
	TOTAL .	337	3	308	:	:	23,175	2,838	1,016	435	4,289	¥	629	340	1,322	5,011	1,902	1,004	1,042	4,008	0,010
Madraa	 	69 89	16	51 2	16	. 18	1,243	271 18	132	91 :	410] 	: 55		19 17 17		114	148	\$ *	305	630
	TOTAL .	89	16	53	. 18	18	1,208	580	132	#	 <u></u> 43	5			#	287	119	146	ሪ		- 100 - 100
Rajputana Ajmer-Merwara .	•	ġ	. :	\$ \$	2		88	5	- <u>51</u>	 	368	8	\$		8	410	8	-		3	່ 33 ເ
GRAND TOTAL (MICA) FOR 1022	() FOR 1022	IH	\$	302	8	8	30,080	3,358	1,275	401	5,004	P01	924	320	1,547	0.041	5 140				
A 40 1	PRECEDING YEAR		99	543	118	11	20,470	:		:	:	:	:	:		10,329	2,956	1,929		6,214	10,543
DUFERENCE	•	-168		-151			610+	:		 :		 :	 • :	:		-3,730	808			-1,745	-6,475

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· STATISTICS OF MINES AND MINERALS-contd.

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Table No. 1-contd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1922-contd.

	_			ER OF	NUMES IN	SPECPED	l l			AVER		MBER OI	, FER30	N9 EAL		1					1
1		Number of mines		128.	DURIN YE.	G THÉ AR,	TOTAL				BELOW	BROUND.				4		ABOYE	GROUND.	<u>, </u>	.]
PROVINC I.	District and mineral field. /	under the scope of the Act.		Not worked by me- chanicai power,	Number of mines inspect- ed.	Number of inspec- tions,	OUTPUT.	Adult males,	MENE Adult females,	RS. Children	Total.	Adult males.	OTB Aduit females	Children	Total.	Total below ground.	Adult males.	Adult females	Children.	Total above ground.	Grand total below and abov ground.
		<u> </u>	 		r	 NGANE	SE ORE.	 								! 		! 	{ 	! 	·
Bombay 1	Panch Mahais	2		2	2		Tons. 39,703	676	476	•-	1,152	67	1		68	1,220	210	, 68	117	385	1,60
. !	Balaghat	22		21	9	0	148,823	1,461 235	1,686	81	3,228	60 3		•••	60 3	3,288	510 155	470	87	1,007	4,355
Central Provinces	Chhindwora		. 1		1		33,478	280	406	9	695					695 6	146	143 76 6	32 41	203 203	958
	(Nagpur	. 20) 	18	10	11	127,065	1,159	1,354	23	2,536	58	3	••	61	2,597	5 94	362	32	958	3,583
	TOTAL	. 49	,	4	23	25	344,774	3,135	3,812	157	7,104	127	\$		130	7,234	1,619	1,057	192	2,668	9,905 I
Madras	Vizagapétam		3		3 3	3	7,845	223	136	45	404					404	ʻ`100	14		114	51
	GBAND TOTAL (MANGANESE) FOR 192	2 5	4	4 54	20	28	392,322	4,034	4,424	202	8,660	194	4		198	8,858	1,729	· 1,129	300	3,167	12,025
•	H ,, OF PRECEDIN YEAR	· 6	5	4 6	L 45	48	634,75 7							••		13,472	1,904	1,673	278	8,855	17,327
	DIFFERENCE	1	1	1	1	20	-142,435						-			-4,614	-175	544	+31		5,302

26

	-																-		_		
	Bilaspur	et	:	••	:	:	1 Tons. 8,603		.	:	8			-					;		
· · · · · · · · · · · · · · · · · · ·	Jubbulpore, Katal	8	0	8	8	8	0 123,110	1,065	036		2,051	80		49	3 1,053	3,104	305 208	561	: :	962	316 3,840
	. Total .	\$	61	स 	ឆ 	ନ 	0 131.725	- 1 1 1	936	9	. 2,111	Ş.	976	3	3 1,005	905°\$	467	9 8	10	050	4,156
Burma,	Northern Shan States.		:		:	:	8.735	8	:	:	8	:	:	:	:	8	:	:	:	:	*
	ORAND TOTAL (LIVESTORE) POR 1022.	55	61	23	ି ଶ	8	140,307	7 1,155	036	8	2,11	8	970	. 3	1,005	8	103	88	5	S S	
	· · OF PRECEDING	37	-	36	ដ 		284,254	: 	:	:	:	:	:	:	:				126	1,623	6,00g
	DITTENEXCE	21	+1	۳ ۲	1		143,747	:	:		:	:	:	:	:	-1,760	100	1		-673	1 1 1 1 1 1
					[E.—SALT.					ļ		 							T
	Jychum · · · ·		#	:	-		Tons.	_	:	:	678	•	- 478		0	1.145	¥			1	• .
Punjab	Mianwali	H	:	-	-	61		\$ \$;	:	ន	43	_	•					:	Ş	1,210
-	Btalipur	-	:	-	:	:	22,106	45	32	en 		:	:	· : 	•		: :	: :	::	: :	2 I
	ORAND TOTAL (SAIT) FOR 1922.	9		81	01	~	187,157	7 043	10 00		180	103	478	8	030	1,817	\$:	:	•	1 300
	VEAR .	•	1	~	-		123,034	:	:	:	:	:	:	:		80	8 		:	30	199
	DUPPENK.SCR .	ī	:	ī 	+		+01,073	:	:		:	<u> </u>	:								
							FGEMS.	 		 		: _	:	:	:	¥		:	:	ī	108+
_						(a)	(a) Rubies.		_ _			-						-			
-	Antha	:	:	:	:	: 9	D3,078		_		•	_	-			<u> </u>	<u> </u>	<u>.</u> .			
Burma,	Katha	л	ei :		:	::0	t 102,462 Spìnel.		:	:		136	:	:	136		405	:	:	495	1,254
	Torat	6	04		:		94116V		-			<u> </u>			_ _ -			_	- -	-	
					:				: _ _	:	<u>s</u>		:	:	: :::::::::::::::::::::::::::::::::::	220	405	;	:	405	1.254
Italputnaa	Ajmer-Merwata	01	:	81	:	:		: 	:	:	:	:	:	:	:	:	:	:	:		:
	GRAND TOTAL (GREA) FOR 1922.	6	61 	en	:	:	231,100	024	:	:	624	135		 	135	!_		<u> </u> .		: 	:
-	. UASY	8	ର 	*	:	:	200,215	:	:	:	:	:	:	:	:	904	458	::	::	458	1,254
	DIFFRRNOE .	ĩ	:	ī	:	:	+ 30,045	:	, : 	:	:	:	:	: 	:		+ 31		:	1	

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STATISTICS OF MINES AND MINERALS-contd.

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Table No. 1-contd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1922-contd.

·			NUM		NUZRA MINES 13	R OF SPECTED				AV ER	GE NU	IBER OF	PERSO	NS EMPL	OLED D	AILY IN	AND AI	OUT TH	IE MINE	s	
	•	Number of mines	MIS	ES.	DURIS	O THE				1	BELOW GR	OUND.					Аво	VE GBOU	ND.		
PROVINCE.	District and mineral field.	under the scope of the Act.	Worked	Not	Number	Number	TOTAL. OUTPUT		М	INERS.			Оті	iers.		Total					Grand total belo and abov
			by me- chanical power.	by me- chanical power.	inspect-	of inspec- tions,		Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.	ground.	Adult males.	Audit mal es.	Children.	ground.	ground
						G	SLATE.				1 ,										
har and Orizza	Monghyr	5		5			Tons. 2,624 	142	103	61	306			••		306	114			114	4
	Gurdaspur	·				·]		
ajab	Gurgaon	6		6 4	4	4	00,661 4,936	25 95	••	4	20 95	60	•••	34	100	129 95	19 38	 	8	25 69	1
	TOTAL .	10	<u> </u> 	10	4	•	35,600	120			124	66	 	84	100	224	57	23	14	94	31
	GRAND TOTAL (SLATE) FOR	15		15		-¦ 	38,224	262	103	65	430	06		34	100	530	171		14	208	
	, OF PRECEDING TEAR.			18	'											613	105	20	20	\$35	
•	Difference .	-			5							 			<u> </u>	-83	-24	+3	6	-27	
har and Orissa ,	Singhbhum					 H ··	-GOLD. 02%.														
Ladras	AnantApur			3	L 1	1	8,388	58		 	58	48	 		48	106	203	70	31	403	5
	GRAND TOTAL (Gold) POI	R 2		s 1	L 1	1	8,388	58		·	58	48			48	106	293	70	31	403	
	D D PRECEDING		•¦ •		2	2	10,108									101	829	82	43	447	
	DIFFERENCE .	-	1	+1		_1			1		{	/ /		<u> </u> -		+5		_3	-12		-

	}	1	ļ	· ·	1	I.—IR	ON ORE.	1							1	1	!	1	1	ł		
Buma. , ,	Mandalay	1		1	1		Tons.		••		 		 17	 	242	242	40 192	 	 	40 122	46 364	
	TOTAL .	4		4			27,680		 			225	17		242	242	168	•••		108	410	
Bibar and Orises	Singhbhum	5		5	3	7	212,703	605	495	30	1,130			••		1,130	382	162	56	600	1,730	
Rajputana	Ajmer-Merwara	1	1					7	ĺ		7	3		••	3	10	20			20	\$0	
	GRAND TOTAL (IRON ORE) FOR 1923. ", OF PRECEDING TEAR .	10 9	1			7	240,383 286,190	612	495	30	1,137	228	17		245	1,382 1,954	570 839	162 276	56	788 1,126	2,170 3,080	
	DIFFERENCE .	+1	1	+2		+3		 		 		 		 			240	-114	+45			•
					J.—W	OLFRA	M ORE.															
Burma, , , , {	Mergul Tavoy Thaton		••	 3 	 	••• ••	33 938 1	167		included s Includ	167	ose for those for	Tin ore	 c.		167	32	••	••	32	199	AZ.
	Тотаь .	3		3	•••••		942	107		`	167			••	•••	167		 		32	199	
	GRAND TOTAL (WOLFRAM) FOR 1922. ,, ,, OF PRECEDING YEAR	3 15		\$ 18	• 	'	942 8843	167		••	107	 		••	•••	107 1,708	32 320	••		32	199 2,044	
	Difference .	12		10	-11	11	+571	 _	·	 	<u> </u>	 		,	 	-1,541		7	·· 		1,845	١
		<u>-</u>	 .		.	MAGNE	 SITE.			<u> </u>		 										
Madras	Salem	2	••	2	1	1	Tons, 18,417	269	248	408	925			•• .	••	925	' 112	••	- 40	152	1,077	
,	TOTAL OF PRECEDING YEAR.	2	••	2			17,152	•	•••	•••						798	109		82	141	039	•
	DIFFERENCE	ÿ			+1	+1	+ 1,205			••	••	••				+ 127	+ 3		+8	+11	+138	

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STATISTICS OF MINES AND MINERALS-contd.

Table No. 1-contd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals during the year 1922-contd.

Į			NUMB MIN		NUMBE MINES INS DURIN	PECTED O THE	· 1	·			BELOW G	ROUND.						Аво	VE GROUS	m.	1
	District and mineral field.	Number of mines under			TE		TOTAL		Mr	(ERS.			OTE	EBS,		Watel					Grand Total
Province.	•	the scope of the Act.	Worked by mecha- nical power.	Not worked by mecha- nical power.	Number of mines inspected	01	PR'OUTPUT.	Adult males.	Adnit females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.	Total below ground.	Adult males.	Adult females.	Chlidren.	Total above ground.	below an above ground
					LCH	ROMIT	E ORE.														
ajuchistan	Zhob	22		22	.		Tons. 18,548	141			141				••	141	143		<u>.</u> .	143	z
ihar and Orissa	Singhbhum	3	<u> </u>	3	1	1	1,147	68	65	20	143	<u> </u>	<u>]</u>	<u> </u>		143	26	22	4	52	1
	GRAND TOTAL (CHROMITE ORE) FOR 1922.	25		. 25	1	1	19,695	209	65	20	284					284	169	22		195	. c
	TOTAL OF PRECEDING YEAR .	24]	24	••		27,727	•••					••	••		540	151	44	17	212	7
	Difference .	+1	<u> </u>	+1	+1	+1		••	<u></u>		<u></u>			<u> </u>	1	262	+18		-13	17	·2
					M	COPPEI	R ORE.						1		1		1		ł		ļ
Bihar and Orissä	Singhbhum	•	2	:	2	4	Tons. 30,764	813	3		816	4			•	820	1,321	525	78	1,924	2,7
catral Provinces .	Balaghat	1		1			<u> </u>	8	3		11				1	11	8	1	. 1	10	
	GRAND TOTAL (COPPER ORF FOR 1923	5		2	2	•	30,764	821	G		827				•	831	1,329	62¢	79	1,934	2,7
•	·· ·· OP PRECEDING YEAR	2 4		e :	2 2	2	32,500	<u> </u>	<u></u>					<u></u>	<u> </u>	738	1,394	677	74	2,145	
	DIFFERENCE	+1	<u> </u>	+	<u> </u>	+2	-1,790		. <u> _:-</u> _	<u> </u>	<u> </u>		<u> </u>	<u>_ </u> _	<u> </u>	+ 93	65		+8		-1
				1	N	.—BAU			1	1.		1									
Central Provinces	Jubbulpore	. 1			·	<u> </u>	79,740	2	30		53		· · ·		t	58	24	33	5	62	·
	TOTAL OF PRECEDING YEAR .	. 1		1	1	1	03,060				••					208	9		•	13	1
	DIFFEBENCE		<u> </u>	1 +	1 -1	[13,39	»					1	· · ·		-150	+15	+ 20	+5	+ 19	-1

	1	1	i	1 ·	•	D.—CLA		· ·	ł		1	: 1				I	1	}	I	ł	
Bihar and Orissa	Banbhum Palamay	1		1			To ns. 1,231 1,927	2 8	2	5	4 21	 	 	<u>7</u>	 	4 21	2 20	4 10	6	6 36	10 57
	TOTAL .	2		2	·	<u> </u>	3,138	10	10	5	25				••	25	22	14	6	42	6
Central Provinces	Jubbulpore	5	2	3	2	2	40,802	149	312	8	469	2	100	••	102	571	40	••	8	48	61
Delhj	Delhi · · · ·	5		5	3	· 3	7,938	24		•••	24	12		••	12	36	29	1	••	30	
	GRAND TOTAL (CLAY) FOR 1922 TOTAL OF PRECEDING YEAR .	12 14		Į.	5 3	5	57,918 87,475	183	322	13	518 	14 	100		114 	632 1,124	• 91 208	15 84-	14 102	120 394	7/ 1,5
	DiFFERENCE .	-2		-2	+2	+2							<u> </u>			-492	117	-69	88	-274	7
<u> </u>					P.—	LEAD ()RE. Tons.					,									
Borma	Northern Shan States	1	τ				•172,017.	1,161			1,161	120		, 	120	1,281	539		••	530	1,8
Central Provinces .	Drug	1		1			1	5	12	••	17	•••	••	···		17	- 5	12	••	17	
	GRAND, TOTAL (LEAD ORE) FOR 1922 ,, OF PRECEDING YEAR	2	1	1			172,018 144,0893	1,108	12		1,178	120		·	120	1,208 1,009	544	12		556 445	1,0
	 Dirrerence .	 			1		+27,928}		[+ 289	+111	, ••		+111	+
				 	Q	TIN O	RE. Tons.			<u> </u>					<u> </u>						
uma{	Mergui Tavoy Thaton 	15 27 2	 1 	15 26 2	3 , 8 , .	, 8 9 ••	181 894 5	482 1,744 19	22 24 19	8 4	507 1,772 38	10 	•• ••	••	14 	6:1 1,772 38	87 520	6 14 11	••	93 . 534 	2,
	TOTAL . TOTAL OF PRECEDING YEAR	44 • 31	1 8	43 28	11 2	12 2	1,080 1,032	2,245	65	7	2,317 	10 	, 4 , 1		14	2,331 852	007 711	20 45	5	027 701	2
-	DIFFERENCE .	+13	2	+16	+9	+ 10	+48						•••	 	 	+1,479	-104	25	5		+1,

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* Amount of refined lead extracted 39,214 tons.

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STATISTICS OF MINES AND MINERALS-contd.

Table No. 1-concld.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1922-concld.

<u> </u>						ER OF				ERAGE	NUMBE	R OF PE	RSONS	EMPLOY	ED DAII	LY IN AP	ND ABOI	T THE	MINES.		
		Number	MIN	ER OF	DURIN	SPECTED O THE AB.						Below of	LOUND,					ABOVE	BROUND.		
PROVINCE.	District wild mutcher netwo	of mines under the scope of the Act.	Worked	Not	Nomber	Number	TOTAL OUTPUT.		М	INERS.			011	IERS.	_	Total			1.	Total	Grand total below
			by mechani- cal power.		of mines inspect- ted.	of Inspec- tions.		Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.	below ground.	Adult males.	Adult females.	Children.	above ground.	ground.
			÷-) - -	R	STEAT						' 	¦	''			·	' 			
Central Provinces	Jubbulpore	2		2	•3	3	Cwt. 1,706	18	5		23				•••	ಟ	3	12	3	18	41
Madras	Nellore	2		2	2	2	1,408	13	1		14	·		1	<u> </u>	14	8	3	••	11	23
	GRAND TOTAL (STEATHTE FOR 1922		· · ·	4		5 5	3,204	31	6		37					37	11	15	3	20	68
	II II OF PRECEDING	2 e	3	e		3 3	23,430									134	31	60	21	112	240
	DIFFERENCE	. !	2										<u> </u>	i		-97	-20	-45	-18		-180
Central Provinces .	Jubbalpore		•		5.—FUI 	LERS'] 	EARTH. Tons. 152	ĺ	Labour	figures	ncluded	with the	se for i	mestone.	<u> </u> -						
	TOTAL OF PRECEDING YEAR				-{- <u></u> -		113	_ ! #		 Ditto		j Ditto	<u> </u>	Ditto.	<u>i</u>		¦	<u> </u>	 	<u> </u>	
	Difference					TSIL	+39 VER.	• • •						1400.	<u> </u>	 		<u> </u>	 .	! 	<u> </u>
Burma	Northern Shan States	· •					Ozs. 4,205,5841	: *_	Labour	fixures.	included	with the	ose for	icad ore		.			•		
Madras	· Anantapur						55	· · · · · · · · · · · · · · · · · · ·	Labour	ificures	included	i iwith th	ose for	gold.	.' 	┨╼──		╏───	╎───		╎╌──
	GRAND TOTAL (SILVER) F 1922	OR	ļ				4,206,136	• • •													
	", ", OF PRECEDI VELB	20					3,535,640	,	<u> </u>	 				•							
	DIFFERENCE						+ 650,494	8		.	.		<u> </u>				<u> </u>				

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									-	·• -	• • - •									-	
	1	ł	1	(i	U	—АРА]		į	1	1	ł	,		t	[1	ł	[1	ļ	
Bihar and Orisan	Slagh bhum	1		1	•••		Tons,			•••	•						85	54		80	89
•	TOTAL OF PRECEDING TRAR .	1		1	·		347	<u>-</u>			••					11	8	21	••	29	40
	DIFFERENCE .					· . <u>. </u>		•••	<u> </u>	••				••		-11	+ 27	+ 83	••	+ 60	+ 49
				İ	♥	-GRAP	HITE.									ſ					
entral Province	Betvl	1		1	••				۹.			••			••		3	2	••	5	5
	TOTAL OF FRECEDING YEAR .	2		2	<u></u>	<u> </u>	503					!			_ <u></u>	37		0	• •	14	61
	DIPPERENOR	1	••	<u> 1</u>		<u></u>	503	<u></u>			<u> </u>			••	<u> </u>					9	, —46
	Puri	1	1			.—0CH	RE. Tons. 400	8			8		-	••		. 8	20			20	34
thar and Orless	Furi			 			604	40			53					63	105			162	¥15
	GRAND TOTAL (OCHRE) FOR		1	2	••		094	48				.,			·	61	131	46	11	188	240
	" " OF PRECEDING	1			••	••	450									8	23			200	83
,	DIPFERENCE .	+2		+2			+ 544	••	••	••						+63	+100	+46	+11	+103	+ 210
		<u> </u>			X.	BAR	d' Cwt.												i		
fadran .	Kurnool	8		8			15,786	04	••	0	70					70	18	80	20	' 124	194
	TOTAL OF PRECEDING YEAR .	1'		1	••		9,400							••		7	2	8	10	20	27
	DIFFERENCE .	+2		+2			+ 6,385	•	 	· · · ·	 	 	·	 	 	+03	+10	+72	+16	+ 104	+ 167
, •	GRAND TOTAL (ALL MINERALS), 1922	1,618	555	1,063	87,7	1,769<	Tons 19,460,601 Cwt. 128,818 (arats. 231,100 Troy ounces 4,214,626	04,852	87,335	1,701		20,164		703		137,017		28,850	5,048		228,61
	GRAND TOTAL OF PRECEDING VIAR	1,741	558	1,183	708	1,238<	Tons. 19,949,988 Cwt. 155,805 Carnts. 200,215 Troy ounces 3,505,748	}	•••	•	·					140,200	60,065	84,640	- 5, 153	100,364	240.00
	Difference		3		+ 70	+530	Tons. 479,8274 Cwt. -27,047 Carats. +30,045 Troy ouncer +648,778						•••				2 3,078	5,687			-21,1

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• One mine had been closed since September 1921. † Extracted from 172,017 tons of lead ore.

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Table No. 2.

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							COAL.					1		COK	Έ.				
PROVINCE.	District and	miner	al field.	Opening stock.	Raisings.	Total.	Despatches	Colliery	Coal doli- vered to	Coal des- patched to	Closing	OPENIN	G STOCE.	Coke	MADE.	Despa	TCHES.	CLOSIN	G STOCK.
				stock.	Traieringer		Despatences	tion.	coking.	coke fac- tories.	stock.	Hard.	Soft.	Hard.	Soft.	Hard.	Scít.	Hard.	Soft.
			_	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons
	Lakhimpur	•	• :	516	291,747	292,263	279,645	11,591	995	·	32			332]	332		••	
Assam	Naga Hills		• . •	96	55,903	55,999	55,204	383	••		412	·	••						
	Sibsagar .	•	• •		••	••			••				••					•••	
·,		Тота	Ŀ.	612	. 347,650	348,262	334,849	11,974	995		444		••	332		332			
	(Kalat .	٠			80	J 80	23		••		57								
Baluchistan .	Loralai .		•	• • • •	, 42	. 42	28		••	· ••	14		••			İ			
pandematat	Quetta-Pish	in .	•	1,476	6,644	8,120	6,880.	76	••		1,164		••	••		••	••	••	
•	Sibi-Khost	•	•	2,217	33,866	36,083	25,977	5,852	••		4,254		••	•-		••••	••••	••	
· · ·		Тот	L	3,693	40,632	44,325	32,908	5,928	••		5,489	· ••	••				•	_	
	(Bankura-Re	niganj	•	1,501	6,881	8,382	3,510	3,160			1,712			 ·		 	 		/
Bengal	Birbhum	** *	•	. 284	12,154	12,438	7,996	4,031	•••		411				••				•••
	Burdwan	,,	•	197,918	4,309,951	4,507,809	3 ,537,715	735,044	9,809	5,905	225,301	97	76	809	4,699	รงเ	4,392	15	383
		Тот	LL.	199,703	4,328,986	4,528,680	3,549,221	742,235	9,809	5,905	227,424	.97	76	809	4,609	891	4,392	15	383

Analysis of figures relating to output of Goal and Coke.

	GRAND TOT	AL 1922 .	2,106,866	18, 168, 988	20,275,854	14,543,113	2,601,073	480,114	333,752	2,651,554	7,652	12,980	133,521	188,979	124,094	168,383	17,079	33,576
		Total .	6,270	67,180	73,450	64,715	3,370	••		5,365	••	••					•	·
(Shahpur .	• • •	1,162	5,047	6,209	5,665	40		••	504	••		••	••			• ••	
Punjab	Mianwali .		1,189	. 14,301	15,490	13,824	33	••	••	1,633			••				•••	:
{	Jhelum .		3,919	47,832	51,751	45,226	3,297	÷.	••	3,228	••							·
		Total -	18,193	675,841	694,034	595,668	63,774	21	- 	34,571	••			- 15		15		
	Ycotmal .	• • •	596	3,687	4,283	3,450	833	••	••	· ••	••			••			••	
	Narsinghpur		3,751	84,996	88,747	74,984	8,156	••	••	5,607				••			••	
Central Provinces	Chhindwara		9,887	453,484	463,371	408,943	. 30,881	21	••	23,526	**	•••		15		 15	••	{ ••
	Chanda .	• • •	3,800	132,680	136,489	107,706	23,904	•• •		4,879		••	•••	••		•••	••	•••
· · · · · · · · · · · · · · · · · · ·	Betul .		150	994	1,144	585			•••	559				! 		}		
Burma	Southern She	an States .	224	172	396	19	/ 138	184	••	55		••		126	 ••	32		94
		Total , .	1,878,171	12,708,527	1 4,586,6 98	9,965,733	1,773,654	469,10 5	327,847	2,378,206	7,5 55	12,904	132,380	184,139	• 122, 871	163,944	17,064	33,009
	ganas.	(Raniganj .	4,439	24,277	28,716	10,449	10,258		••	8,0 09	••	,	•• •		· · ·		` . .	••
	Sonthal Par-	Jainty .	3,759	96,612	100,371	88,860	9,970			1,541	••		••				••	
	Sambalpur-E	lingir Rampur		68,618	68,618	49,013	18,756			. 849	••			••			••	
	 Palamau-Dal	•	830	1	32,763	16,915	4,805			11,043	••	••					39	11,212
Bihar and Orissa	Manbhum	{Jharis Raniganj	207,541		1,057,492	531,367	224,676	289,336 122,803	15,938	178,646	10401 	2,216	89,270 86	98,401 81,263	79,699	87,006 72,267	16,908	21,598
]]	(Ramgarh	. 1,603,375	i 9,748,541	4,565 11,351,916		1,386,431		 311,377	353 2,117,245	 7,427	•• 10,203	••• 90.070			••	••	••
· ·		Jharia	. 32,393				32,132	1,387	. 532	37,069	128	••	27 2	458	373	449	27	១
•	Hazaribagh	Giridih	. 24,733	1	683,836		67,532	49,637		14,078	••		42,752	••	42,752		••	
	<u>{</u> }	Bokaro	. 1,090	-, ,	1,038,270		19,094	5,942	••	9,373	••	485	'	4,017	••	4,222		280

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Table No. 3.

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Number of mines opened and closed during the year ending 31st December 1922.

Province.	District.	Number of mines opened.	Number of mines closed.
Азбам • • • •	A.—COAL. Lakhimpur Sibeagar	 	••
- ·	Total .		
BALUCHISTAN	Kalat . . . Loralai . . . Quetta-Pishin 1 1 1	1
· .	Sibi-Khost	1	1
	Total .	4	3
Bengal	Bankura Birbhum	1 1 19	 1 14
	Total .	21	15
Bihar and Orissa	Hazaribagh . Hazaribagh . Giridih Manbhum . Raniganj	1 1 27 15	 1 18 0
•	Sambalpur-Hingir-Rampur	1	••
	Total .	45	25
CENTRAL PROVINCES	Botul	1 3 13	 7 1
	Тотац .	17	8

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Table No. 3-contd.

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Number of mines opened and closed during the year ending 31st December 1922—contd.

- Province.	Distric	t	Number of mines opened.	Number of mines closed
Ринјав	Jhelum Shahpur	• • •	8	1
· .	-	TOTAL .	8	2
	Tor.	AL (COAL)	95	53
•	B.—MIC	A.		-
1	Gaya		6	11
	Hazaribagh		93	100
BIRAR AND ORISSA	Monghyr		1	2
· (Sambalpur		. د	% • -••
•	•	TOTAL .	100	113
Madras	Nelloro	•••	2	29
	Nilgiris	• • •		··-
• <u> </u>		Total .	2	29
RAJPUTANA	Ajmer-Merwara .	· · ·	7	21
	Beawar	· · ·		
		Total . -	7	21
	Тота 	L (MICA)	109	163
	C.—MANGANESI	S ORE.		
{	Balaghat	•••	••	3
ENTRAL PROVINCES	Bhandara	• • •	•• 、	1
[Jubbulpore	•••	1	••
	Nagpur	• • •	2	1
	TOTAL (MANGANE	SE ORE)	3	5

Table No. 3—cont d.

Number of mines opened and closed during the year ending 31st December 1922—contd.

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Province.	District.	Number of mines opened.	Number of mines closed
	DLIMESTONE.	· · ·	
CENTRAL PROVINCES	Bilaspur	••••	1
	Jubbulpore	3	. 2
-	TOTAL (LIMESTONE)	. 3	3
- -	E.—SALT.		
•	Jhelum		•••
Punjab	Mianwali		•••
ł	Shabpur	•••	
•	Total (Salt) .		•••
	F.—GEMS.		•
BURMA	Katha	Ī	•••
Cajputana	Ajmer-Merwara	•••	2
	Total (Gems) .	1	•
	G.—SLATE.		-
SIHAR AND ORISSA	Monghyr	、	•••
· · · ·	Gurdaspur		•••
UNJAB	Gurgaon	•••	1
L L	Kangra	•••	••• .
•	Total .	·	 _ 1
- -	TOTAL (SLATE)		1
· · ·	H.—GOLD.	<u>;</u>	
ADRAS	Anantapur	1	

Table No. 3-contd.

Number of mines opened and closed during the year ending 31st December 1922—contd.

Province.	District.	Number of mines opened.	Number of mines closed
<u>·</u>	L-IRON ORE.		·
BIHAR AND ORISSA	Singhbhum		2
BURMA	Northern Shan States		••
	TOTAL (IRON OBE) ``.	2	2
ſ	JWOLFRAM ORE. Mergui	2	1
BUBMA	Tavoy	••	••
L	Thaton	•• 1	••
	TOTAL (WOLFRAM ORE) .	2	1
BIHAB AND ORIESA	KCOPPER ORE. Singhbhum	1	•• _
CENTRAL PROVINCES		1	••
CENTRAL PROVINCES	M.—CLAY. Jubbulpore		2
Delm	Delhi	2 -	4
·	TOTAL (CLAY) .	2	6
CENTRAL PROVINCES	N.—LEAD ORE. Drug	1	1
F	O.—TIN ORE. Mergui	5	Б
	Татоу	3	7 ·
ų	Thaton	1	1
	TOTAL (TIN ORE) .	9	13
CENTRAL PROVINCES	P.—STEATITE. Jubbulpore		1
ladbas	Nellore	• 1	••
	TOTAL (STEATITE)	1	1
ENTRAL PROVINCES	QOCHRE. Jubbulpore	2	1
LADRAS	R.—BARYTES. KUBNOOL	3	1
	GRAND TOTAL (ALL MINES)	236	253

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Table No. 4.

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, magnesite, steatite, clay, bauxite, fuller's earth, graphite, molybdenite, ochre, barytes, apatite, and calcite.

YEAR.	Coal.	Manga- nese ore.	Mica.	Lime- stone.	Salt.	Gold.	Copper ore,	Wolfram ore,	Iron ore.	Chro- mite ore.	Tin ore.	Lead ore.	Silver.
	Tons.	Tons.	Cwt.	Tons,	Tons.	Troy ozs.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Troy ozs
1013 .	15,486,318	637,391	43,650	71,259	138,540	11,019	3,630	1,376	98,371	8,414	87	1	
1014 .	15,727,631	555,672	38,189	146,605	135,518	19,873	4,400	1,576	167,600	3,006	45	31	1
1015 .	16,352,480	378,172	24,003	64,179	144,770	24,320	8,010	1,072	128,617	1,465	14	7	612
1916 .	16,410,082	568,032	35,978	45,200	160,357	23,235	2,671	2,955	142,606	5,004	88	7	1,362
1917 .	17,326,384	497,052	35,806	82,340	152,542	22,991	20,108	3,006	178,303	17,266	182		1,281
1918 .	10,847,039	415,357	61,672	131,451	158,513	10,916	3,610	3,009	115,800	24,030	602	3	1,169
1919 .	21,769,727	420,164	41,683	146,810	174,974	11,191	32,756	2,005	101,322	14,067	701	21	753
1920 .	17,082,711	682,636	44,666	161,340	181,092	13,645	28,167	1,733	148,472	23,123	1,056	128,908	2,870,595
1921 .	18,358,934	284,254	29,470	284,252	123,084	10,108	32,560	8841	286,100	27,727	1,032	144,0894	3,555,640
1922 .	18,168,988	392,322	30,089	140,507	187,157	8,388	30,764	942	240,383	19,695		1	4,206,188

Table No. 5.

The following table shows the amount of coal raised, the average number of persons working daily and the death-rates during the years 1913 to 1922 in respect of coal mines under the Indian Mines Act, 1901 :---

								DFATE-	RATES.
		YEAR.			Amount of coal raised.	Average number of persons work- ing daily below and above ground.	Number of dcaths below and above ground.	Per 1,000,000 tons raised.	Per 1,000 per- sons working daily below and above ground.
					Tops.		· · · · · · · · · · · · · · · · · · ·		
1913	•		•		15,486,318	133,042	185	11-95	1.39
1914		•	•		15,727,631	· 137,851	145	9.22	1.05
1915		•			16,352,480	145,537	166	10.12	· 1·14
1916		•	•	•	16,419,082	143,459	169	• 10.29	1·18
1917		•	•	•	17,326,384	153,683	163	9*41	1.06
1918		•	•		19,847,039	176,269	197	9.93	1-12
1919		•	•		21,759,727	190,052	260	11-95	1.37
1920		•	•	•	17,082,711	175,943	172	10.07	0.98
1921	•		•		18,358,934	190,647	257	13 •99	1.35
1922	•	•	•		18,168,988	184,355	209	11.50	1.13

Table No. 6.

The following table shows the aggregate horse power of electric motors installed both on the surface and underground at coal mines under the Indian Mines Act, 1901 :--

		-		Пог	UR POWER	ON SURP	ACE,		E	OBSE POW	er brlow	GROUN	D.	TOTAL
COAL	,	 >.	Winding.	Venti- lation.	Haviage,	Coal washing or acreen- ing.	Miscell- ancous.	TOTAL.	Haulage	Pamp- ing.	Portable machi- nery.	Miscell- ancous	TOTAL.	HORSE POWER OF MOTORS INS- TALLED.
Assem	•	•	•••				••			30.24		••	30-24	30-24
Central P	rovi	ncca		100		50	50	260	20	210		••	230	490
Giridih	•			••		110	58	168	105	850	15	••	970	1,138
Juriș	•	•	1,645	340	1,065-50	· 220	842	1,112-50	2,337-50	8,109-50	824	98	11,369	15,481.50
Raniganj		•	1,947	807	835	225	135	4,00 9	2,295	4,8 55	374	305	7,829	11,838
		ŀ			<u></u>						<u></u>		<u> </u>	
Tota	L	•	8,592	1,367	1900-50	605	1,085	1.549-50	4,757-50	14,054.74	1,213	403	20,428-24	28,977-74

Table No. 7.

The following table shows the aggregate horse power of electric motors installed at all mines under the Indian Mines Act, 1901 :---

			MI	NERALS V				
PROVINCE.		Co	Å. L	Cr	Дү.	SUNDEY]	MINERALS.	TOTAL HORSE POWER OF MOTORS
		Number of mines.	Horse power.	Number of mines.	SHorse power.	Number of mines.	Horse power.	INSTALLED.
Assam , ,	•	1	30-24	••	 	•••	••	30-24
Bongal	•	35	9,285	••	·		••	9,285
Bihar and Orissa	•	52	19,172-50	· · ·	•••	1	1,677	20,849.50
Burma	•		••	•••		5	2,040	2,040
Central Provinces	•	1	490	2	65	2	149	704
TOTAL	•	89	28,977-74	2	65	8	3,866	32,908.74

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Table No. 8.

The following table shows the number of electrically driven coal-cutters at work in coal mines under the Indian Mines Act, 1901 :---

	Ман	ER.		TOTAL			
COALFIELD.	British.	American.	Chain.	Bar.	Percussion.	NUMBER INSTALLED.	
Jharia	9	13	13	9		22	
Raniganj .	3	15	16	1	1	18	
Total .	12	28	29	10	1	40	

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APPENDIX II.

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ACCIDENTS IN MINES.

Table No. 1.

List of fatal accidents in mines regulated by the Indian Mines Act, 1901, during the year 1922.

Serial No.	Date and hour of ac ^{cident} .	Name and situation of mine.	Name of owner.	Name, sox, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
			EXPLOSIONS AND IGNI	TIONS OF FIRE-DAMP-	(21 deaths).	
1	23rd January, 1 г.м.	Jeefpur mine, Jamadoba P. O., Bibar and Orissa.	Bengal Iron Co., Ld.	Bauri Mahato, (m.), 26, Surveyor's Chainman. /)	Coal	Whilst a party was surveying in a disused gallery an ignition of firedamp took place. Severe burns were received by three persons, one of whom died twenty-four hours later. Inspection and inquiry made.
2	9th March, 2 P.M.	Khost mine, Khost P. O., Baluchistan.	North Western Railway	Gulani Husain, (m.), 25, Coal-cutter. Niaz Gul, (m.), 27, Shoveller. Allah Ditta, (m.), 21, Timberman. Metwali, (m.), 12, Bahran, (m.), 17, Bahran, (m.), 18, Fakir Mahomed, (m.), 18, Fakir Mahomed, (m.), 18, Pack-men. Abdulla, (m.), 18, Pack-men. Abdur Rahman, (m.), 38, Timberman. Kala, (m.), 23, Pack-man. Pir Khan, (m.), 42, Labourer.	Coal	The thirteen deceased were killed by an explosion of firedamp in a longwall face in a coal seam. Three persons also were soverely injured. It was presumed that the gas was ignited by a defective safety lamp. Inspection and inquiry made.

2		1	1	Noor Mahomed, (m.), 35,		(See previous page).
-				Fan-man. Sujan Singb. (m.), 30,		
				Mine-male. Mehar. (m.), 20, Fan-man.		
3	27th May, 9 P.M.	Damra mine, Kalipahari P. O., Bengal.	Kalipahari Coal Co., Ld.	Oyòrali Meah, (m.). 50, Main gallery driver.	Coal	Deceased carrying an open light went into the face of a gallery and ignited an accumulation of firedamp. He sustained se- rious burns and died sixteen hours later. Inspection and inquiry made.
4	22nd June, 11 A.M.	New Ghusick mine, Kalipahari P. O., Bengal.	New Ghusick Coal Co.	Puron Mshara, (m.), 30, Sona Mahara, (m.), 16, Coal-cutters.	Coal	Whilst the two deceased were working in an advance heading of small dimensions one of them accidentally struck with his pick and broke the glass of his safety lamp. Firedamp was ignited and they received burns from which they died several hours later. Inspection and inquiry made.
5	5th July, 8 A.M.	Parbelia mine, Dishergarh P. O., Bihar and Orissa.	Bengal Coal Co., Ld.	Sukar Singh, (m.), 30, Sukar Kahar, (m.), 22, Tipon Singh, (m.), 52, Sukar Singh, (@ .), 28, Main gallery drivere.	Coal .	Whilst two coal-cutters were at work in the face of a narrow ad- vance heading an explosion of firedamp took place. They were both killed. The flame of the burning gas was pro- pagated by coal dust and extended to a point 136 feet from the face where four miners were sitting. These men were severely burnt, and two of them died within a few days. The initial explosion was due to a defective safety-lamp. The gas was considered to have accumulated because two of the deceased had broken dewn an air-stopping. Inspection and inquiry made.
	,		FALLS OF ROO (a) Fails of ro	F AND SIDES. of—(57 deaths).		1110/15,
6	3rd Јапиагу, 3-30 г.м.	Dandot mine, Dandot P. O., Punjab.	Rai Sahib Thakur Das, Ram Das.	i Alam Shah, (m.), 34, Saidan Shah, (m.), 36, Coal-cutters.	Coal	The two deceased were crushed by a slab of stone, $3' \times 2' \times 1\frac{1}{2}'$, which fell from a "slip" in the roof—a height of 3 feet. Alam was killed instantly, and Saidan died immediately after he had been extricated. Inspection and inquiry made.
7	5th January, 4 A.M.	Kirkend mine, Kusunda P. O., Bihar and Orissa.	Marine Coal Co., Ld.	Tilak Suri, (m.). 45, Coal-cutter.	Coal	Deceased and another coal-cutter broke down a fence, and were robbing coal from a barrier when a mass of coal, weighing about 3 tons, fell without warning from two "slips." De- ceased was killed instantly. The other man received injuries to his foot. Inspection and inquiry made.
ج دی	6th January, 12-30 P.M.	Ackhalpur mine, Nandi P. O., Bengal.	Hnrriladíh Coal Co., Ld.	Shova Kole, (m.), 28, Labourer.	Coal	Deceased entered a fenced area. A piece of roof stone, $5' \times 2'6' \times 1'$, , fell from a height of 11 feet killing him instantly. Inspection and inquiry made.

Fatal Accidents, 1922-contd.

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orial No.	Date and hour of accident.	Name and situation of mine.]	Name of owner.	Name, sex, age and cocupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
	· ·	· · · · · · · · · · · · · · · · · · ·	FALLS OF ROOF AN	ID SIDES—contd.	-	
			(a) Falls of roof—(d	57 deaths)—contd.		
.9	25th January, 3 p.m.	Dishergarh East mine, Dishergarh P. O., Bengal.	Equitable Coal Co., Ld.	Bajan Manjbi, (m.), 21, Coal-cutter.	Coal	Deceased went through a fence, and commenced picking up falle coal in a goaf, when a mass of roof coal, $3' \times 3' \times 2'$, fell upo him from a height of 8 feet. He was killed instantly. Inspe tion and inquiry made.
10	31st January, 1-30 г.м.	Albion mine, Nawagarh P. O., Bihar and Orissa.	Albion Coal Co., Ld.	Budhni Turin, (f.) 20, Coal-carrier.	` Coal	Deceased was engaged in loading coal in a gallery, 10 feet hig where coal was being taken down from a "alip" in the roo A piece of coal, 18"×12"×9", fell and struck her on the le causing a fracture. Gangrene set in, causing fatal results week later. Inspection and inquiry made.
11 ·	lst February, 10-30 A.M.	Sripore mine, Kalipahari P. O., Bengal.	Lodna Colliery Co., (1920) Ld.	Tuklal Singh, (m.), 31, Propsman.	Coal	A mechanical contrivance for loading coal tubs underground we being moved into a gallery. Deceased was in front guidi- it between the timber supports, and several other men we pushing it along from the rear. The front end struck as knocked out one of the timbers and caused a portion of t stone roof to fall. Deceased was struck by a piece of ston weighing 5 owt., which fell from a height of 7 feet, and we killed instantly. Inspection and inquiry made.
12	2nd February, 5 P.M.	Jainty Central mine, Karmatar P. O., Bihar and Orissa.	Jainty Central Colliery, Ld.	Hari Meah, ((m.), 35, Coal-cutter.	Coal	Deceased was cutting down a band of stone which overlay to coal in an underground gallery. A piece of stone, $3' \times 1' \times 1'$ fell from a height of 5 feet on his foot, causing injuries fro which he died ten days later. Inspection and inquiry made.
13	2nd February, 7 P.M.	Jamai-Datla mine, Parasia P. O., Central Provinces.	Rai Sahib Mathura Prosad Motilal & Co.	Mata Badal Kehwat, (m.), 50, Coal-culler.	Coal	Deceased went into a fenced-off gallery to out coal. While doin so he was killed by a mass of roof stone, 12'×6'×9", whi fell on him from a height of 4 feet. Inspection and inquir made.
14	9th February, 3 P.M.	Ledo Valley mine, Margherita P. O., Assam.	Assam Railways & Trading Co., Ld.	Ainwalla Musalman, (m.), 24, Coal-carrier.	Coal	Whilst a gang of loading coolies was filling coal from an "ope ing" or chamber, 20'×20'×13' high, a mass of stone, weighin 1 owt., fell from a height of 13 feet. Deceased, in attemptin to get clear, was crushed against the side, and sustained fractured spine. He died an hour later. Inspection an inquiry made.

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15	12th February, 2 P.M.	Sharigh mine (leases 76 & 83). Sharigh P. O., Baluchistan.	H. Minck	Ali Mahomed, (m.), 25, Coal-cutter.	Coal	Whilst at work in a longwall face deceased was killed by a fa of roof shale, 4 feet in diameter and 2 feet thick. Inspectic and inquiry made.
16	l7th February, б р.м.	Godhur mine, Kusunda P. O., Bibar and Orissa.	S. B. Raha & Son	Akloo Meah, (m.), 20, Coal-culler.	Coal	Whilst deceased and another man were taking down roof cou a piece of coal, 12'×3'×2', suddenly fell on them, crushi deceased so severely that he died shortly afterwards. T other man was injured. Inspection and inquiry made.
17	26th February, 12 P.M.	Ens mine, Jharis P. O., Bihar and Orissa.	North West Coal Co., Ld.	Rupan Singb, (m.). 28, Labourer.	Coal	Deceased was measuring the length of a prop. preparatory setting it, when a portion of the roof suddenly fell and kill him almost instantly. Inspection and inquiry made.
18	9th March, 3 P.M.	Ushbul or Murdar mine, Quetta P. O., Baluchistan.	Sorabji & Co.	Kumbar, (m.), 30, Carpenter.	Coal	Deceased was killed by a fall of roof coal on an underground road.
19	10th March, 6 A.M.	Jotejanaki mine, Toposi P. O., Bengal.	P. K. Chatterjee & Bros.	Petambar Teli, (m.), 25, Coal-culler.	Coal	Whilst working in an underground gallery, deceased went to lo into the goaf behind the pillar where he was at work. A mu of roof coal, weighing 4 or 5 tons, fell from a height 15 feet, striking him on the head and killing him instant Inspection and inquiry made.
20 P	17th March, 7 а.м.	Jamadoba mine, Jamadoba P. O., Bihar and Orissa.	Tata Iron & Steel Co., Ld.	Gobindo Bauri, (m.), 32, Pillaring Sirdar.	Coal	Deceased was withdrawing props in a goafed area when a port of the roof fell and knocked out a prop which hit him on head with such force that he was killed almost instantly. spection and inquiry made.
21	17th March, 10 A.M.	Khewra mine, Khewra P. O., Punjab.	Government of India	Bannu, (f.), 13, Salt-carrier.	Salt	In a chamber, 65 feet high and 40 feet wide, excavated in re- salt, a bridge of rock salt, 8 feet thick and 7 feet wide, had b- left to carry a roadway. A small infiltration of water of solved a portion of the salt and so weakened the support t a mass of several tons of rock salt fell from the underside of bridge to the floor of the chamber, 45 feet below. Decea- was killed instantly. Inspection and inquiry made.
22	Sth April, 10 A.M.	Sudih mine, Sitarampur P. O., Bongal.	Divekar Manilal & Co.	Ratan Dhangur, (m.), 45, Coal-cutter.	Coal	Deceased entored a gallery which had been fenced off on acco of the roof being unsafe, and was struck by a portion of shale roof $7' \times 3' \times 7''$, which fell on him from a height of 8 f He sustained serious injuries to the skull and died four he later. Inspection and inquiry made.
23	13th April, 9 а.м.	Bhagaband mine, Juaria P. O., Bihar and Orissa.	Borrea Coal Co., Ld.	Ghanu Bauri, (m.), 30, Timberman.	Coal	Deccased was withdrawing props in a gallery when some r stone fell on him. He received injuries from which he die few hours later. Inspection and inquiry made.
24	14th April, 10-30 л.м.	Bagdigi mine, Jharia P. O., Bihar and Orissa.	Villiers, Ld.	Suki Kamarin, (f.), 18, Coal-carrier.	Coal	Deceased was employed in a part of the mine where pillars we being extracted. A piece of stone, $5' \times 4' \times 8''$, fell upon from the roof at a height of 7 feet. She was killed instant Inspection and inquiry de.

Name, sex, age and Name of Date and hour of Serial No. Name and situation of mine. Name of owner. occupation of person mineral Cause of accident and remarks. accident. killed. wrought. . FALLS OF ROOF AND SIDES—contd. (a) Falls of roof -(57 deaths)-contd. 25 26th April, South-East Baraboni mine, Maharaja of Cossimbazar Suki Mejhian, Coal A miner was engaged in getting down overhanging roof coal from a pillar in course of extraction when a mass of coal, $15' \times 4' \times 4'_1$ Charanpur P. O., 1 P.M. (1.), 25, . Bengal. broke away suddenly and swaved out several timbers. De-Coal carrier. ceased, who was sitting down close by, was struck on the head by one of the falling timbers and died subsequently. Inspection and inquiry made. 26 28th April. Keshoram Satgram mine Deceased was working in an underground gallery when a piece of Keshoram Poddar & Co. Goni Manihi. Cosl shale, $4' \times 3' \times 6''$, fell from a height of 7 feet, inflicting injuries 11 P.M. Raniganj P. Ŏ., 🕐 (m.), 14, Bengal. which caused death six hours later. Inspection and inquiry Labourer. made. 27 18th June. Sijua mine. Tata Iron & Steel Co., Ld. Deceased was killed by a thin band of stone falling from a height Fudki Harin, Coal 6-30 л.м. Sijua P. O., of 15 feet. Inspection and inquiry made. (f.), 35, Bibar and Orissa. Coal-carrier. 28 10th July. Noonodih mine, Bengal Iron Co., Ld. Chilengi Burhi. Coal Deceased and another man were engaged in timbering the roof, 10 л.ж. Jamadoba P. O., when a mass of coal, $21' \times 3' \times 18''$, fell from a height of 64 feet. (m.), 26. Bihar and Orissa. They were both seriously injured and deceased died within ten Timberman. days. Inspection and inquiry made, 20 20th July, Jotejanaki (Koradanga) mine, P. K. Chatterice & Bros. Bhola Harce, Coal Deceased was one of a gang of coal-outtors ongaged in extracting 3 р.м. Toposi P. O., a pillar of coal. They undercut the pillar too far and brought (m.), 14, Bengal. Coal-carrier. about the fall of roof stone, $4' \times 4' \times 9''$ thick, from a height of 14 feet. Deceased was killed instantly. Inspection and inquiry made. . 30 26th July Golukdih mine. N. M. Choudhuri Bheyaram. Coal Deceased was loading coal in a gallery when a piece of coal, 12 A.M. Jharia P. O., $3' \times 2' \times 2'$, fell from a height of 8 feet. The coal broke on (m.), 13.Bihar and Orissa. Coal carrier. striking the floor, and a piece re-bounded and struck him on

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the back. He sustained injuries from which he died nineteen

days later. Inspection and inquiry made,

Fatal Accidents, 1922-contd.

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31	9th August, 11 A.M.	Bastacolla mine, Jharia P. O., Bihar and Orissa.	New Beerbhoom Coal Co., Ld.	Pushua Abir, (m.). 40. Coal-culler.	Coal	Deccased was standing in a working gallery when a block of roof stone, $20' \times 15' \times 4'$ thick, fell upon him from a height of 18 feet, and killed him instantly. Inspection and inquiry made.
32	llth August, 9 а.м.	Bhaskajuri mine, Asansol P. O., Bengal.	Burrakur Coal Co., Ld.	Nobin Hazra, (m.), 22. Payari Hazra, (m.), 21, Propsmen.	Coal	Deceased with a gang of coolies was instructed to retimber a road- way where a fall of roof had taken place. He set the coolies to work removing the fallen roof, but neglected to place tom- porary supports. A further fall of roof took place, killing deceased and injuring five of the gang, one of whom subse- quently died. Inspection and inquiry made.
33	13th August, 12-30 а.м. -	Chora mine, Chora P. O., Bengal.	N. C. Sircar & Co.	Moni Mejhian, (f.), 30, Sukbi Mejhian, (f.), 25, <i>Tub-fillers.</i>	Coal	Whilst a gang of loading coolies was sitting at the junction of two gallerics a mass of roof, $15' \times 6' \times 9''$, fell from a height of 23 feet. Five persons were injured, two of whom died shortly afterwards. Inspection and inquiry made.
34	16th August, 2 P.M.	Junardeo (No. 1) mine, Pench P. O., Central Provinces.	Rai Sahib H. Verma and M. Kanhaiyalal.	Chhoti Loharin, (f.), 40, Coal-carrier.	Coal	Deceased was employed in loading coal into baskets in a place where a pillar of coal was being extracted. A piece of coal, $3' \times 2' \times 4^{\circ}$, fell between the props from a height of $6\frac{1}{2}$ feet. She was struck on the back and sustained injuries which caused death a fortnight later. Inspection and inquiry made.
35	26th August, 6 P.M.	Bamanband mine, Chora P. O., Bengal.	Ghose and Adhikary	Pran Krishna Bauri, (m.), 32, Coal-cutter.	Coal	Deceased entered a fenced-off underground gallery, and whilst cutting coal at the side of a pillar, a piece of stone, $5' \cdot 6' \times 1' \cdot 3' \times 1'$, foll on him from a height of 7 feet, inflicting injuries from which he died shortly afterwards. Inspection and inquiry made.
36	30th August, 4 P.M.	Jogta mine, Sijua P. O., Bihar and Orissa.	Agabeg Brothers	Dhursan Dhobin, (f.), 22, <i>Coal-carrier</i> .	Coal	Deceased was in the act of loading a tub in the top section of a seam when a stone band, 2½ feet thick, which formed the floor of the top section and the roof of the bottom section, collapsed over an area of about 150 square feet. Deceased fell with the stone and was killed instantly. Inspection and inquiry made.
37	12th September, 2 р.м.	Hatnol mine, Dishergarh P. O., Bengal.	K. D. Laik and J. K. Devi	Sido Manjhi, (m.), 40, Coal-cutter.	Coal	Deceased went through a fonce to cut floor coal. While cutting the coal he was injured by the fall of a mass of roof atone, $4' \times 1' \cdot 9'' \times 4''$ thick, which fell from a height of 9 feet. He died three hours later. Inspection and inquiry made.
38	14th September, 10-30 л.м.	East Nancî mine, Toposi P. O., Bengal.	H. F. Pilcher	Pitamber Gops, (m.), 40, Rajaram Koar, (m.), 50, Sunder Chahi, (m.), 28, Coal-cutters.	Coal	The three deceased went through a fence into a goafed area in order to load some fallen roof coal. Whilst doing so a large slab of roof stone, 1 foot thick, fell on them from a height of 10 feet, killing one of them instantly. The two others sustained injuries which torminated fatally. Inspection and inquiry made.
` 39	20th September, 5-30 p.m.	Nandi mine, Nandi P. O., Bengal.	Adjai Coal Co., Ld.	Kaloo Chamar, (m.), 56, Overman. Mohan Chamar, (m.), 40, Coal-cutter.	Coal	The two deceased passed through a fence and entered a goafed area from which the props had just been withdrawn. The roof fell killing them instantly. Inspection and inquiry made.

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Fatal Accidents, 1922-contd.

Serial No.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
	- -		FALLS OF ROOF A			•
40	21st September, 4-30 r.m.	Lamchanchi mine, Kodarma P. O., Bihar and Orissa.	(a) Falls of roof—(d Chota Nagpur Mica Syndicate Ld.		Mica	Deceased was killed by a fall of roof in the end of an underground level. Inspection and inquiry made.
41	7th October, 5 P.u.	Borjan mine, Kongon P. O., Assam.	Nazira Coal Co., Ld.	Samir, (m.), 32, Coal-cutter.	Coal	Deceased whilst robbing coal from a pillar was killed by a fall of coal.
42	7th October, 10 A.M.	North Lohaputti mine, Mohuda P. O., Bihar and Orissa.	East Jamuni Coal Co.	Bishtu, (m.), 35, Coal-cutter.	Coal	Deceased had left his working place and commenced cutting coal from the side of a pillar when a portion of the roof, weighing about 2 tons, fell on him, killing him almost instantly. Ins- pection and inquiry made.
43	7th October, 6 P.M.	Bamangarah mine, Nawagarh P. O., Bihar and Orissa.	Seth Mohamedali Mamooji	Later Sing, 2 (m.), 26, Timberman.	Coal	Deceased was preparing to retimber a part of the roof of a gallery which was unsafe. He neglected to support the roof tempo- rarily before removing the old timbers with the result that a mass of coal and stone, weighing about 2 tons, fell on him killing him almost instantly. Inspection and inquiry made.
44	12th October, 10 A.M.	Choitodih mine, Katrasgarh P. O., Bihar and Orissa.	Tata Iron & Steel Co., Ld.	Bultoo, (m.), 34, Coal-cuiter.	Coal	Whilst deceased was working in a gallery, roofstone, 8" thick, fell over an area of about 160 square feet. He was killed almost instantly. Inspection and inquiry made.
· 45	17th October, 9 A.M.	Ledo Valley mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ld.	Manbahadur Lama, (m.), 30, Labourer.	Coal	Deceased was killed by a fall of roof coal in an "opening" or chamber.
46	25th October, 4 P.M.	Hermyingyi mine, Tavoy P. O., Butma.	Burma Finance and Mining Co., Ld.	Goo Two, (m.), 35, Miner.	Tin and Wolfram orea	Deceased was engaged in cleaning out an old adit when he ⁴ was killed by a mass of schist, weighing several tons, failing upon him. His body was recovered next day. Inspection and inquiry made.
47	30th October, 10-30 P.M.	Tikak mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ld.	Churamoni Kamar, (m.), 34, Labourer-	Coal	Whilst deceased was getting down loose coal after blasting in an "opening" or chamber, some of the coal fell upon him, causing fatal injuries.

	48	5th November, 4-30 л.м.	Benabir mine, Jharia P. O., Bihar and Orissa,	Standard Coal Co., Ld.	Fulmati Belaspurin, (f.), 22, Coal-carrier.	Coal	Deceased and five others were working in a gallery when a mass of coal, weighing approximately 1 ton, fell from a height of about 20 feet. Deceased was so severely injured that she died almost immediately. Another person was slightly injured. Inspection and inquiry made.
	49	8th November, 2 P.M.	Foley mine, (Lease No. 59), Sharigh P. O., Baluchistan.	Baluchistan Coal Co., Ld.	Mirgul Mahomed, (m.), 25.	Coal	Deceased was killed by a fall of roof in an underground working.
•	50	19th November, 7-30 а.м.	Jamai-Datla mine, Parasia P. O., Central Provinces.	Rai Sahib Mathura Prosad Motilal & Co.	Nand Ram, (m.), 30, Coal-cutter.	Coal	Deceased was sitting down when a piece of stone, $4' \times 2' \cdot 6' \times 9''$, fell from a concealed "slip" at a height of 3 feet. His head was wedged against the ground, and before he could be rescued he died from sufficiation. Inspection and inquiry made.
	51	23rd November, 6-30 A.M.	Byauk Chaung mine, Tavoy P. O., Burma.	Burma Finance & Mining Co., Ld.	Leo Yut, (m.), 35, Miner.	Tin and Wol- fram ores.	Deceased was engaged in driving a new adit level close to an old one when a quantity of loose rock fell upon him from the old adit level. He sustained injuries from which he died.
	52	24th November. 6 P.M.	Gandhala mine. Dandot P. O., Punjab.	Pandit Gian Chand	Sher, (m.), 40, Carpenter.	Coal	Whilst deceased was setting timber on an underground road a fall of roof coal took place. He sustained injuries which proved fatal.
ı	53	28th November, 1 A.M.	Namdang mine, Margherita P. O., Assam.	Assam Railways & Trading, Co., Ld.	Ramnath (Marar), (m.), 34, Labourer.	Coal	Whilst deceased was testing the side in an "opening" or chamber preparatory to drilling a shot hole a mass of stone fell. Both ankles were fractured necessitating amputation. He died five days later.
ι.	54	7th December, I A.M.	Tirap mine, Margherita P. O., Assam.	Assam Railways & Trading Co., Ld.	Sukhon Mala, (m.), 32, Labourer.	Coal	Whilst working in an opening the deceased and another person were injured by a mass of roof stone which fell from a height of 21 feet. The deceased died from his injuries ten days later. Inspection and inquiry made.
χ.	55 _.	13th December, 1 A.M.	Jainty Central mine, Karmatar P. O., Bihar and Orissa.	Jainty Central Colliery, Ld.	Mohi Mia, (m.), 26, Coal-cutter.	Coal	Whilst deceased was robbing coal from a pillar he was killed by a mass of stone, $8' \times 6' \times 6''$, which fell from a height of 8 feet. Inspection and inquiry made.
	56	27th December, 9 A.M.	Choitodih mine, Katrasgarh P. O., Bihar and Orissa.	Tata Iron & Steel Co., Ld.	Budhan Mistry, (m.), 36, Carpenter.	Coal	Deceased was struck by a mass of stone, $23' \times 7' \times 18''$, which foll from the roof—a height of 5'.3". He was killed instantly. Inspection and inquiry made.
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	• •			(b) Falls of side	—(65 deaths).		· · · ·
	57	8th January, 4-30 A.M.	Sanotoria mine, Dishergarh P. O., Bengal.	Bengal Coal Co., Ld.	Sankroo Roy, (m.), 38, Coal-cutter.	Coal	Deceased, in the absence of the sirdar, went to rob coal from a pillar 700 feet distant from his working place. A mass of coal, weighing about 30 cwt. fell on him from the side of the pillar and killed him instantly Inspection and inquiry made.

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Fatal Accidents, 1922-contd.

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erial Noi	Date and hour of acoident.	Name and situation of mine.	Name of owner.	Name, sex, age and cooupation of person killed.	Name of mineral wrought.	Cause of acoident and remarks.
			. FALLS OF ROOF A	ND SIDES—contd.		
			(b) Falls of side-(6)	5 deaths)—contd.		
58 ,	11th January, 7-30 a.m.	Chatabar mine, Mugma P. O., Bihar and Orissa.	Chatabar Colliery, Ld.	Lacha Dosad, (m.), 40, Labourer.	Coal	A gang of six coolies removed a fence, and was cutting earth nee the edge of a quarry. Deceased was carrying debris into the quarry, when a portion of the side, 9'×2'×4', collapsed, an he fell backwards into the quarry—a distance of 9 feet. H sustained injuries to which he succumbed half-an-hour late Inspection and inquiry made.
59	13th January, 12 A.M.	Hermyingyî mine, Tavoy P. O., Burma.	Burma Finance & Mining Co., Ld.	Lum Yoke, (m.), 32, Tributor.	Tin and Wolfram ores	Whilst deceased was ongaged in barring down rock at the entrance to a newly commenced adit—some rock fell from the side an struck him on the leg, fracturing it. He was taken to hospita but succumbed to exhaustion on the following day.
60	28th January, 10 а.м.	Godhur mine, Kusunda P. O., Bihar and Orissa.	S. B. Raha & Son	Kochia Ruhidas, (m.), 35, Coal-cuiler.	Coal	Whilst deceased was robbing coal in a fenced off gallery he w killed by a block of coal which fell from a height of 10 fee Inspection and inquiry made.
61	6th February, 2.45 а.м.	Kinuri mine, Nirshachati P. O., Bihar and Orissa.	Kinuri Coal Co., Ld.	Prayag Bauri, (m.), 35, Filler.	Coal	Deccased and another fitter had been repairing a pump which w slung on a platform near the bottom of a shaft 237 feet depth. They were standing in the sinking bucket by the pun platform, when a piece of stone, weighing 78 lb., fell from the side of the shaft and struck deceased upon the head, killin him instantly. Inspection and inquiry made.
62	7th February, 4-30 p.m.	Sq. No. 18-h mine, Kodarma P. O., Bihar and Orissa.	Satya Kinkar Sahana and others.	Latoo Gope, (m.), 25, Miner.	Mica	Deceased was working in a prospecting pit, 5 feet in diameter ar 11 feet deep, when some 7 cwt. of earth and stones fell from "slip" in the side of the shaft. He received injuries from which he died three hours later. Inspection and inquiry made.
63	8th February, 4 A.M.	North Singaran mine, Toposi P. O., Bengal.	S. C. Chowdhury	Sibon Manjhi, (m.), 36, Coal-cutter.	Coal	Deccased left his working place and entered a disused galler, which was fenced-off. A mass of coal fell from the side of pillar, at a height of 13 feet. A portion of the coal, weighin about 3 cwt., struck deccased, killing him instantly. Inspo- tion and inquiry made.

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64	l0th February, 6-15 г.м.	Bankola mine, Ukhra P. O., Bengal.	Burrakur Coal Co., Ld.	Mooso Manjhi, (m.). 40. Coal-cutter.	Conl	Whilst deceased and another minor were cutting coal from the side of an underground gallery, they loosened a mass of coal, weigh- ing about 5 tons. One piece, $4' 6' \times 3' \times 3'$, fell over on to deceased, who was sitting down beneath it, killing him instantly. The other miner was seriously injured. Inspection and inquiry made.
65	15th February, 6-45 г.м.	Viceroy mine, Nandi P. O., Bengal.	Minto Coal Co., Ld.	Kisson Chamar, (m.). 45, Coal-cutter.	Coal	Deceased was cutting coal from the side of a pillar in course of ex- traction when a mass of coal, weighing about 1 ton, fell from the side of the pillar at a height of 10 feet on to deceased, caus- ing injuries from which he died next day. Inspection and inquiry made.
CB	23rd February, 1-30 P.M. 9	Joyramdanga mine, <u>Asansol</u> P. O., Bengal. •	New Beerbhoom Coal Co., Ld.	Barka Manjhi, (m.). 35, Coal-cutter.	Coal	Deceased left his working place against orders, and started to out the side of a pillar in an underground gallery. A mass of coal, weighing about 1½ tons, fell from the side of the pillar at a height of 9 feet and struck deceased, killing him instantly. Inspection and inquiry made.
67	4th March, 4-30 д.м.	Parbelia mine, Dishergarh P. O., Bihar and Orissa.	Bengal Coal Co., Ld.	Behari Meah, (m.), 35, Stone-cutter.	Coal •	Deceased with three other stone-cutters was working on a stage suspended at a point 40 feet from the bottom of a shaft 1,489 feet in depth. A piece of stone fell from the side of the shaft above them and struck the protective steel helmot which de- ceased was wearing. He sustained a fracture of the skull and died several hours later. Inspection and inquiry made.
68	10th March, 11 г.м.	Tikak mine, Margherita P. O., Assam.	Assam Railways & Trading Co., Ld.	Purnananda Thapa, (m.), 30, Coal-carrier.	Coal ·	Deceased and another man were filling coal in an "opening" or chamber when a mass of side coal, weighing about 4 tons, fell upon them. Deceased was killed instantly, and the other man sustained serious injuries. Inspection and inquiry made.
69	22nd Maroh, 9 л.м.	Northern mine, Nawagarh P. O., Bihar and Orissa.	Northern Coal Co., Ld.	Manbodh Bilaspuria, (m.), 25, Coal-cutter.	Coal	Deceased went within a fenced area to rob coal from a partly orushed pillar. A mass of coal, $7' \times 7' \times 3'$, and weighing about 5 tons, fell on him. Ho received injuries from which he died almost immediately. Inspection and inquiry made.
70	23rd March, 6-30 г.м.	Busserya mine, Kusunda P. O., Bihar and Orissa.	Busserya Coal Co., Ld.	Banshiram Gowala, (m.), 25, Coal-cutter.	Coal	Deceased left his working place in a quarry and commenced to rob coal from a portion of the quarry which had been fenced- off on account of overhanging and dangerous side. A mass of coal and stone, weighing about 10 cwt., fell upon him from the side at a height of 4 feet. He sustained injuries to which he succumbed about an hour later. Inspection and inquiry made.
71	30th March, 5-45 г.м.	South Lohaputty mine, Mohuda P. O., Bihar and Orissa.	South Lohaputty Coal Co.	Motua Manjhi, (m.), 21, Coal-cutter.	Coal	Deceased was said to have been robbing coal in a quarry, when a mass of coal and overburden, $30' \times 14' \times 4'$, and weighing about 77 tons, fell from the side, and partially buried him. He received injuries, which caused death almost immediately. Inspection and inquiry made.

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Se rial No .	Date an d hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
			FALLS OF ROOF AN	D SIDES contd.		· · · · · · · · · · · · · · · · · · ·
			(b) Falls of side-(0	5 deaths)—contd.		
72	31st March, 5-30 P.M.	Jealgora (North) mine, Jamadoba P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	Munda Chamar, (m.), 28, Coal-cutter.	Coal	Deceased was taking down side coal when a portion of the side of the pillar, weighing about 15 tons, fell and, striking deceased killed him instantly. Inspection and inquiry made.
73	lst April, 2 г.м.	, Sohagpur Dhana & Kotmi mine, Shahpur P. O., Central Provinces.	Shaikh Shahabuddin & Sons	Tulsi Kotwor, (m.), 25, Labourer.	Coal	Deceased was killed by a fall of side in an abandoned surface work ing. Two other persons were injured. Inspection and inquir made.
74	22nd April, 12 л.м.	Muraidih mine, Katrasgarh P. O., Bihar and Orissa.	Bholaram Agarwalla	Chotta Mahato, (m.), 32, Coal-culler.	Coal	Deceased was engaged in removing overburden from the side of quarry when a mass of earth, $7' \times 5'$ $6'' \times 18''$, fell and buried him. He received injuries from which he died two hours later. Inspection and inquiry made.
75	28th April, 5-30 A.M.	Gopalichuk Head mine, Jharia P. O., Bihar and Orissa.	Gopalichuck Coal Co., Ld.	Bhatoo Gope, (m.), 35, Coal-culler.	Coal	Deceased while undercutting coal on the side of a quarry wa struck by a fall of coal and stone weighing about 15 cwt. H was severely injured and died soon after. Inspection and inquiry made.
- 76	28th April, 2 p.w.	Asakuti mine, Katrasgarh P. O., Bihar and Orissa.	Royal Coal Co., Ld.	Jamru Manjhi, (m.), 35, Coal-cutter.	Coal	Deceased left his working place and began to rob coal from th corner of a pillar. A mass of side coal, weighing about 2 tons broke away from a " slip." and fell on him killing him instantly Inspection and inquiry made.
77	28th April, 12-30 P.M.	Pretoria mine, Charanpur P. O., Bengel.	Seebpore Coal Co., Ld.	Kala Manjhi, (m.), 25, Ooal-cutter.	Coal	Deceased went through a fence and commenced robbing coal from the corner of a pillar. A mass of coal, weighing about 15 cwt. broke away from the side of the pillar and fell on him, killing him instantly. Inspection and inquiry made.
78	lst Мау, 7 г.м.	Sonachora mine, Raniganj P. O., Bengal.	Mangalpur Colliery Co.	Masath Ram (Chana), (m.), 22, Labourer.	Coal	Deceased, against orders, went to remove overburden in a quarry. A mass of earth, $8' \times 10' \times 2'$, broke away from the side and fell upon him, partially burying him. He sustained a fracture of the spine and died two days later. Inspection and inquiry made.

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79	8th May, 12-30 P.M.	Ranta mine, Ramgarh P. O., Bihar and Orissa.	Surat Kumar Gupta	Bhugla Kurmi, (m.), 40, Labourer.	Coal	Deceased was killed by a fall of side coal in a quarry.
	22nd May, 12	Mudidih mine, Sijua P. O., Bihar and Orissa.	Burrakur Coal Co., Ld.	Mirja Chamar, (m.), 38, Coal-cutter.	Coal	Whilst deceased was employed dressing the sides of an under- ground gallery a mass of coal. $24' \times 15' \times 2'$ thick, fell on him. He received injuries from which he died two hours later. Inspection and inquiry made.
81	23rd May, 5 A.M.	Kurhurbaree mine, Giridih P. O., Bihar and Orissa.	East Indian Railway Co.	Lakhia Dusadin, (f.), 45, Coal-carrier.	Coal	Owing to heavy roof pressure a piece of coal burst from the side of a pillar and struck the deceased on the leg. She sustained a compound fracture and died a few days later. Inspection and inquiry made.
82	27th May, 2-30 p.m.	Chanch mine, Barakar P. O., Bihar and Orissa.	Bengal Coal Co., Ld.	Dhakal Roy, (m.), 47, Coal-cutter.	Coal	Deccased, whilst at work in a quarry, was killed by a fall of some 3 or 4 tons of overburden from a height of 9 feet. Inspection and inquiry made.
83	; 13th June, 10-45 а.м.	Kodaigaon mine, Khapa P. O., Central Provinces.	Indian Manganese Co., Ld.	Ganpatiappa, (m.), 14, Wagon-trimmer.	Manganese ore	Deceased was killed by a fall of side in a quarry.
84	16th June, 3 P.M.	Sripore mine, Kalipahari P. O., Bengal.	Lodna Colliery Co., (1920) Ld.	Khalapa Madrasi, (m.),37 Coal-cutting Machine- man.	Coàl	Whilst deceased was levering loose coal from the side of a pillar the coal came away suddenly. He tried to jump clear but slipped and was struck by a portion of the falling acal. He was killed instantly. Inspection and inquiry made.
_ 85	23гd June, 11-30 г.м.	Sijua mine, Sijua P. O., Bihar and Orissa.	Tata Iron & Steel Co., Ld.	Hupni Majhian, (f.), 13, Coal-carrier.	Coal	Deceased was struck on the head by a piece of coal, weighing about 30 lb., which fell from a height of about 20 feet. She sustained a compound fracture of the skull and succumbed shortly afterwards. Inspection and inquiry made.
86	27th June, 10 д.м.	Jotojanaki (Koradanga) mine, Toposi P. O., Bongal.	P. K. Chatterjee & Bros.	Luchiram Manjhi, (m.), 25, Coal-culler.]	Coal	Deceased was working on a bench of floor coal 8 feet high. A piece of coal, $3' \times 2' \times 2'$, which he had undercut, fell. He was knocked down and killed instantly. Two other persons received slight injuries. Inspection and inquiry made.
87	27th June, З р.м.	MacLellan mine, Manoharpore P. O., Bihar and Orissa.	Bengal Iron Co., Ld.	Arjoon Gowala, (m.), 40,] Maroo Kola, (m.), 34, Gobarahan Gore, (m.), 25, Miners.	Iron ore	The three deceased and three others took refuge from a heavy fall of rain under the vortical side of a quarry. A mass of material, weighing about 5 tons and consisting of earth and dotached pieces of iron ore, fell suddenly upon them from a height of about 12 feet. Two were killed instantly, another died two days later, a fourth sustained serious injuries and the other two were injured slightly. Inspection and inquiry made.
88	2nd July, 10 4.M.	Lodna mine, Jharia P. O., Bihar and Orissa.	Lodna Colliery Co., (1920) Ld.	Jinot Chamar, (n.), 45, Coal-cutter.	Coal	Deceased, while at work in a quarry, was loading coal into a baskett when a piece of coal, $6' \times 3' \times 2'$, fell from a height of 8 feet. He received injuries from which he died shortly afterwards. Inspection and inquiry made.

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Fatal Accidents, 1922-contd.

		•	Fatal Acci	dents, 1922-contd.		
Seríal No.	Date and h our of accident.	Name and situation of mine.	Name of owner.	Name, se x, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
			FALLS OF ROOF AN	D SIDES—contd.		•
			(b) Falls of side—(64	5 deaths)—cont d.		
. 89	17th July, 1 г.м.	Palaw P. O., Burma.	Yew Shwe Ni	Mg Tun Thi n, (m.), 20, <i>Laboure</i> r.	Tin ore	Deceased, with five other coolies, was cutting a ditch near the side of an opencast working, when a mass of side, weighing about 2 tons, fell upon him from a height of 12 feet. He was killed instantly. Inspection and inquiry made.
_ 9 0	31st July Not known,	Kyine Kyon Kai Daw mine, Karathuri P. O., Burma.	Kyine Kyon	Tan Bai, (m.), 30, Labourer.	Tin ore	Deceased was killed by a fall of side in an open excavation.
91	25th July, 2 P.M.	Nandi mine, Charanpur P. O., Bengal.	Adjai Coal Co., Ld.	Thatoo Manjhi, (m.), 28, Coal-cutter.	· Coal	Whilst a shothole was being bored in some overhanging coal in an underground gallery 12 feet high, the overhanging coal fell without warning. Deceased who was sitting near by was struck by a piece of falling coal and killed instantly. Another miner received slight injuries. Inspection and inquiry made.
92	5th August, 4 A.M.	Central Kurkend mine, Kusunda P. O., Bihar and Orissa.	Central Kurkend Coal Co., Ld.	Barku Singh, (m.), 22, Coal-cutter.	Coal	Deceased was robbing coal in a baulage siding when a piece of coal, $9' \times 3' \times 2'$, feil from the side. He received injuries from which he died twelve hours later. Inspection and inquiry made.
93	llth August, 3 p.m.	Bhowra mine, Jamadoba P. O., Bihar and Orissa.	Eastern Coal Co., Ld.	Latha Bauri, (m.), 22, Coal-cutter.	Coal	Deceased was surreptitiously robbing the side of a pillar when a piece of coal, weighing nearly 10 owt., fell and crushed his right foot so severely that amputation was necessary. Septio poisoning supervened and he died seven days after the accident. Inspection and inquiry made.
94	15th August, 1-30 г.м.	Bhutgoria mine, Jamadoba P. O., Bihar and Orissa.	Aldih Coal Co., Ld.	Doman Mahato, (m.), 32, Labourer.	Coal	Deceased was clearing a gallery which had been filled with stone when a large block of side coal, weighing about 2 tons, fell on him, killing him instantly. Inspection and inquiry made.
95 -	4th September, 4 P.M.	Manaigaon mine, Tharsa P. O., B. N. Rly., Central Provinces.	Central India Mining Co., Ld.	Ganiram Lodhi (m.), 45, Miner. Wadia Gond, (m.), 35, Not employed.	Manganeso ore	During heavy rain the deceased and three other persons took shelter in a tramway cutting. A mass of mica schist, weighing about 24 tons, fell from the side. The deceased were buried. One of them was killed instantly. The other was living when extricated, but was injured as soverely that he died shortly after. Inspection and inquiry made.

96	15th September, 5-30 P.M.	Dishergarh West mine, Dishergarh P. O., Bengal.	Equitable Coal Co., Ld.	Feely Baurin, (J.), 23. Coal-carrier.	Coal	Deccased was employed in carrying fallen coal along a level. A mass of coal, weighing about 10 cwt., broke away from the side of a pillar and fell upon her. She was killed instantly. Inspection and inquiry made.	
97	16th September, 3 г.н.	Dholia No. 2 mine, Kodarms P. O., Bihar and Orissa.	Ansinha & Co.	Panchoo Turi, (m.), 23, Labourer.	Mica	Deceased was killedby a fall of side in a prospecting pit.	•
93	23rd September, 11 A.M.	Sikdardih mine, Giridih P. O., Bihar and Orissa.	Bayra Coal Association	Lidihri Majhian, (f.), 12, Coal-carrier.	Coal	Whilst a coal-cutter was dressing coal from a pillar in a seam 9 feet thick, a mass of coal, weighing about 30 cwt., fell without warn- ing from a "slip" at a height of 7 feet. Deceased who was sitting down near by was struck by the falling coal and sustained serious injuries to which she succumbed six hours later. The coal-cutter was seriously injured. Inspection and inquiry made,	
99	25th Soptember, 3 г.м.	Bokaro Jharia mine, Nawagarh P. O., Bihar and Orissa.	Agarwalla Brothers	Rani Mejhian, (f.), 14. Coal-carrier.	Coal	The deceased was loading coal on an underground tramline when some 5 cwt. of coal fell on her from the side, causing fatal injuries. Inspection and inquiry made.	
100	4th October, 1-45 P.M.	Huntodih mine, Mohuda P. O., Bihar and Orissa.	Huntodih Coal Co., Ld.	Bhola Rai (m.), 30, Coal-cutter.	Coal	Deceased was cutting coal from the corner of a pillar when a block of coal, weighing about one ton, fell unexpectedly and broke his leg. He received prompt medical attention but died eight days later from heart-failure. Inspection and inquiry made.	
101	5th October, 12 A.M.	Joyrampur, mine, Jharia P. O., Bihar and Orissa.	B. R. & Co.	Budhai Gudaria, (m.), 35, Coal-culler.	Coal	Deceased was in an underground gallery, on a ladder, getting down side coal. About 1 ton of coal came away bringing the ladder and deceased to the ground and killing him instantly. Inspec- tion and inquiry made.	ຕ ວາ
102	6th October, 1 A.M.	Bhowra mine, Jamadoba'P. O., Bihar and Orissa.	Eastern Coal Co., Ld.	Lahu Kahar, (m.), Unknown, Coal-cutter.	Coal	Deceased left his working place and commenced to rob the side of a pillar. A block of coal, weighing about 1 ton, fell on him causing fatal injuries. Inspection and inquiry made.	
103	9th October, 9-30 A.H.	Kalabagh mine, Kalabagh P. O., Punjab.	Government of India	Mir Alam, (m.), 48, Miner.	Salt	Deceased was buried by a mass of loose earth, weighing about 5 tons, which fell from the side of a quarry. He was killed instantly. Inspection and inquiry made.	
104 _.	18th October, 6-30 д.м.	Viceroy mine, Nandi P. O., Bengal.	Minto Coal Co., Ld.	Mangal Manjhi, (m.), 45, Coal-cutter.	Coal	The workmen had been withdrawn from a working place owing to a roof "weight." Deceased returned to the place, and was killed by a mass of coal which fell from the side. Inspection and inquiry made.	
105	24th October, 4-15 p.m.	Jamadoba mine, Jamadoba P. O., Bihar and Orissa.	Tata Iron & Steel Co., Ld.	Kaila Mara, (m.), 30, Bhukhi Aran, (f.), 40, Mangie Aran, (f.), 9, Labourers.	Coal	The three deceased wore working in an incline cutting when the side of the cutting to the extent of about 30 tons of stone and earth collapsed and buried them so completely that they died from sufficiation before they could be extricated. Two other persons who were in the cutting at the time, narrowly escaped with their lives. Inspection and inquiry made.	

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Fatal Accidents, 1922-contd.

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erial No.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
-		. '	FALLS OF ROOF AN	D SIDES—concld.		· .
			(b) Falls of side(65	deaths) -concld.	•	
103	27th October, 3 P.M.	Bowla mine, Chora P. O., Bengal.	Bowia Coal Co.	Kristo Bauri, (m.), 40, Coal-culler.	Coal	Whilst deceased was cutting coal in a gallery he was injured by piece of falling coal. He died from the effects of blood poise ing six days later. Inspection and inquiry made.
107	27th October, 3-15 р.м.	Lodna mine, Jharia P. O., Bihar and Orissa.	Lodna Colliery Co., (1920) Ld.	Sashi Baurin, (f.), 35, Coal-carrier.	Coal	Deceased was loading coal in a gallery when a portion of the re and side, weighing about 5 tons, fell from a height of from to 20 feet. Deceased sustained severe injuries to the leg a to the head and died a few hours afterwards. Inspection a inquiry made.
108	29th October, Unknown.	Mwe Hauk Chaung mine, Palaw Township P. O., Burma.	Yew Shwe Ni	Chine Wan, (m.), 30, Miner.	Tin ore	Whilst deceased was prospecting for tin on a hillside a bould weighing about 2 tons, slid down and fell upon him. sustained serious injurics. Ho was rescued about a day lat but died a few hours afterwards. Inspection and inquiry ma
109	8th December, 3 A.M.	Dishergarh East mine, Dishergarh P. O., Bengal.	Equitable Coal Co., Ld.	Tipce Mejhian, (f.), 24, Coal-carrier.	Coal	Whilst deceased was loading a basket of coal she was killed b mass of coal, $3' \times 2' \cdot 6'' \times 2' \cdot 6''$, which fell from a her of 15 feet. Inspection and inquiry made.
110	9th December, 11 P. M.	Lodna mine, Jharia P. O., Bihar and Orissa.	Lodna Colliery Co., (1920) Ld.)	Durga Passi, (m.), 52, Munshi.	Coal	Deccased was sitting at the corner of a pillar into which, on opposite side, a shot was fired, when a piece of coal, weigh about 1 owt., was released by the shock of the shot, and, fall from a height of about 20 feet, struck him on the head a killed him almost instantly. Inspection and inquiry made
` 111	13th December, 8 A.M.	Bhuggutdih mine, Jharia P. O., Bihar and Orissa.	Bengal Nagpur Coal Co., Ld.	Darsan Chamar, (m.), 45, Coal-cutter.	Coal	Deceased had entered a fenced-off gallery and had commenced rob coal from the corner of a pillar, when a block of coal, we ing about 3 tons, fell on him and killed him instantly. Insp tion and inquiry made.
112	13th December, 10 A.M.	Bagdigi mine, Jharia P. O., Bihar and Orissa.	Villiers, Ld.	Suki Ram Chamar, (m.), 30, Pudu Kurmi, (m.), 32, Mohan Teli, (m.), 20, Coal-cutters.	Coal	The three deceased were engaged in testing and preparing blast down the top coal of a pillar, 24 feet high, when a la block of coal, weighing about 5 tons, fell and killed them stantly. Inspection and inquiry made.

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113	20th December, 10-15 A.M.	Khas Joyrampur mine, Jharia P. O., Bihar and Orissa.	Khengarji Trikoo & Co.	Tej Ram, (m.), 23, Coal-cutter.	Coal	Deceased had passed through a fence and commenced to rob coal from the side of a pillar, when a large block, weighing approxi- mately 5 tons, fell on him, killing him instantly. Inspection and inquiry made.
114	23rd December, 12 P.M.	Bararce mine. Jamadoba P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	Hiromdi, (f.), 35, Coal-carrier.	Coal	Deceased and three other workmen broke down a fence and lay down to sleep at the corner of a pillar. A mass of coal, weigh- ing approximately 1 ton, fell on them from a height of about 15 feet, killing deceased and injuring the other three. Inspec- tion and inquiry made.
	j t		IN SHAFTS-	—(35 deaths).		•
	·	· ·	In shalts—Overwi	nding—(9 deaths).		
115	29th April, 9-15 A.M.	Sodepur mine, Sitarampur P. O., Bengal.	Bengal Coal Co., Ld.	 Jugal Manjhi, (m.), 50, Coal-cutter; Rajoni Kora, (f.), 14, Coal-carrier; Ramani Bauri, (m.), 30, Nayan Manjhi, (m.), 35, Dinoo Karra, (m.), 55, Coal-cutters; Nuni Karra, (f.), 15, Pusi Karra, (f.), 40, Coal-corriers; Suku Karra, (m.), 14, Coal-cutter. 	Coal	Sixteen persons were being lowered in a cage down a shaft 887 feet in depth. The enginemen lost control of the engine and the cage dashed on to the landing platform with great force. All the persons in the cage sustained serious injuries and eight of them died subsequently. Inspection and inquiry made.
116 _.	24th August, 3-30 ▲.м.	Hariladih mine, Jamadoba P. O., Bihar and Orissa.	Equitable Coal Co., Ld. In shafts—Ropes and chain	Mahomed Khalil, (m.), 30, Pumpman.	Coal	While deceased was descending a shaft the winding engineman lost control of the engine. The descending cage struck the landing platform with such impact that deceased sustained injuries from which he died next day. Inspection and inquiry made.
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117	3rd February, 8-30 д.м.	Malkera mine, Katrasgarh P. O., Bihar and Orissa.	Tata Iron & Steel Co., Ld.	Atma Singh, (m.), 35, Raghunath Gosain, (m.), 33, Balai Kumar, (m.), 27, Labourers.	Coal	A steel wire guide rope was being installed in a shaft 364 feet deep. The upper end was secured to the winding rope at the pit top by three temporary clamps. The lower end had been clamped permanently at the pit bottom. The guide rope was being tightened by the winding engine when the clamps slipped and the rope fell down the shaft, killing the deceased and injuring five others who were in the shaft bottom at the time. Inspection and inquiry made.

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Fatal Accidents, 1922-contd.

Serial No.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
			IN SHAFTS	-conid.		
			In shafts—Ropes and chains b	reaking—(5 deaths)—contd.		· ·
118	7th May, 3-30 A.M.	Jibutil mine, Morriston P. O., Madras.	Jibutil (Anantapur) Gold Mines, Ld.	Obanna, (m.), 23, Labourer.	Gold	Deceased was standing at the bottom of a winze, 40 feet deep when the windlass rope, $\frac{1}{2}''$ diameter, broke during winding and the bucket, weighing about 2 cwt., fell from the top of th winze on to deceased. He was killed on the spot. Inspection and inquiry made.
119	4th November, 7 A.M.	Ghusick mine, Kalipahari P.O., Bengal.	Ghusick & Muslia Collieries, Ld.	Sriram Mistry, (m.), 38, Fitter.	Coal	Whilst deceased was standing on the top of the cage at the botton of a shaft, 450 feet deep, a guide rope broke. He was struc and fatally injured by the falling rope. Inspection and inquir made.
			In shafts—Whilst ascending or (4 de	descending by machinery— athe).		
120	10th March, 6-30 р.м.	Gopalichuck West mine, Kusunda P. O., Bihar and Orissa.	Gopalichuck Coal Co., Ld.	Sarban Mudi, (m.), 25, Sinker.	Coal	A sinking bucket while being raised in a shaft was caught und the flange of a pipe in the pump delivery column, at a poin about 300 feet from the bottom of the shaft. The stoppag caused one of the suspension hooks to be pulled straight, relea- ing the chain and allowing the bucket to tilt. Deceased was thrown out, fell to the bottom of the shaft and was killed Inspection and inquiry made.
121	20th September, 7 A.M.	Bansdeopur mine, Kusunda P. O., Bihar and Orissa.	Bansdeopur Coal Co., Ld.	Shew Kumar Pandey, (m.), 19, Banksman.	Coal	Deceased boarded the cage in order to descend a shaft. H shouted to the engineman to lower and the latter did so. Whe the cage had descended a short distance, deceased stepped of and his leg was caught between the cage and the pit bank His injuries were so sovere that he died three days later. In spection and inquiry made.
193	lst November, 3-30 p.m.	Bawdwin mine, Namtu P. O., Northern Shan States, Burma.	Burma Corporation, Ld.	Low U, (m.), 20, Mucker.	Silver-lead-zine	Deceased was being raised from a winze in a bucket. The bucket bumped against the timbering and this caused him to fall t the bottom of the winze. His injuries were fatal.

123	20th December, 3 A.M.	Bawdwin mine, Namtu P. O., Northern Shan States, Burma.	Burma Corporation, Ld.	(m.). 30, Miner.	Silver-lead-zinc	An injured man was being taken out of the mine. Deceased was supporting the man in the cage, and appears to have fainted. He fell out of the cage and, falling to the bottom of the shaft, was killed instantly.	
			In shafts—Falling into the s (4 death	shaft from the surface— s).			
124	4th April, Unknown.	North Mosila mine, Kalipahari P. O., Bengal	North Moshila Coal Co.	Jahaj Bauri, (m), 45, Pumpman.	Coal	Deceased fell from the surface to the bottom of a winding shaft, 124 feet deep, and was killed instantly. Inspection and inquiry made.	
125	26th June, 9 ▲.M.	Bhuggutdib mine, Jharia P. O., Bihar and Orissa.	Bengal-Nagpur Coal Co., Ld.	la Mahato, (m.), 45, Underground trolley. man.	、 Coal	Deceased fell down a shaft, 220 feet deep, and was killed. Inspec- tion and inquiry made.	
126	28th June, 11-30 а.м.	South-East Baraboni mine, Charanpur P. O., Bengal.	Maharaja of Cossimbazar	Lakhu Bauri, (m.), 17, Banksman.	Coal	Deceased, whilst opening the valve of a water bucket by means of a pole, was standing on the brickwork fencing of a shaft 350 feet deep. He overbalanced and fell to the bottom of the shaft. He was killed instantly. Inspection and inquiry made.	
127	17th October, 8-15 A.M.	Chanch mine, Barakar P. O., Bihar and Orissa.	Bengal Coal Co., Ld.	Foolchand Roy, (m.), 35, Sirdar.	Coal	Whilst a guide rope was being placed in position in a shaft it bore against a beam placed across the top of the shaft. The beam, on which some planks rested, was displaced, and deccased, who was standing on the planks, fell down the shaft, a distance of 550 feet, and was killed instantly. Inspection and inquiry made.	59
			In shafts—Falling from part of	the way down—(6 deaths).			
128	9th February, 6 A.M.	Khost mine, Khost P. O., Baluchistan.	North-Western Railway	Mir Hussain, (m.), 30, Coal-cutter.	Coal	Whilst a train of trams was descending an inclined shaft deceased attempted to get into the tubs. He slipped and fell down the shaft, sustaining a spinal injury which caused death two days later. Inspection and inquiry made.	
129	lst July, 7 A.M.	Teetulmari mine, Sijua P. O., Bihar and Orissa.	Burrakur Coal Co., Ld.	Charles Leslie Van Ingen, (m.), 19, Mining Pupil.	Coal	Deceased in stepping on to the cage at a mid-landing slipped and fell between the cage and the shaft side to the shaft bottom, a distance of about 80 feet. He was so severely injured that he died almost immediately. Inspection and inquiry made.	
130	5th September, 10-30 A.M.	Loi-an-Central mine, Kalaw P. O., Southern Shan States, Burma.	Coalfields of Burma, Ld.	Law Woo, (m.), 27, Coal-cutter.	Coal	Whilst at work on a temporary staging in a shaft deceased fell to. the bottom of the shaft, 45 feet below, and was killed.	
131 ,	9th October, 3 A.M.	Kargali mine, Bokaro P. O., <i>viâ</i> Mohuda, Bihar and Orissa.	Great Indian Peninsula Rail- way Co.	Mongra, (m.), 20, Banksman.	Coal	As the bucket was being raised from the staging at an inset in a sinking shaft the deceased fell from it into the sump and was drowned. Inspection and inquiry made.	

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Fatal Accidents, 1922-contd.

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eri al No.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
			in se	AFTS—concld.		· ·
			In shafts—Falling from pa	rt of the way down-(6 deat	is)—contd.	
132	30th November, 6 а.м. ј	Aldih mine, Sitarampur P. O., Bengal.	Aldih Cosl Co., Ld.	Rahon Gope, (m.), 40, Sinker.	Coal	Deceased while ascending a sinking shaft, 950 feet deep, either fell or jumped out of the bucket and was killed instantly. In- spection and inquiry made.
133	30th December, 2-30 р.м.	Sijua mine, Jamadoba P. O., Bihar and Orissa.	Tata Iron and Steel Co., Ld.	Bulan Singh, (m.), 38, Tindal.	Coal	Deceased attempted to descend a shaft 235 feet deep by sliding down one of the guide ropes to release the cage which had jammed about midway in the shaft. He was unable to control his descent and falling violently on the cage and thence to tho shaft bottom, was killed. Inspection and inquiry made.
			In shafts—Things fall	ing from the surface(1 dea	ih).	
134	21st January, 2 P.M.	Jharia Khas (Angarpatra) mine, Katrasgarh P. O., Bihar and Orissa.	Trigonait Bros.	Mattu Gope, (m.), 38, Slone-culler.	Coal	Whilst deceased was at work sinking a well a piece of timber, 3° diameter × 5' long, which formed part of the landing platform fell from the surface, a distance of 32 feet. He received in- juries from which he died next day. Inspection and inquiry made.
			In shafts—Things falling	from part of the way down-	/ ·(2 deaths).	
135	30th March, 6 P.M.	Khas Jharia mine, Jharia P. O., Bihar and Orissa.	Seth Khora Ramji	Nomi Gowala, (m.), 30, Unsetter.	Coal	Deccased was the onsetter at the bottom of a shaft. 306 feet deep. Whilst a loaded tram was being raised in the cage a piece of coal, weighing about 4 lb. fell from the tram and struck him on the head. He sustained a fracture of the base of the skull, and died three days later. Inspection and inquiry made.
136	17th April, 4-30 р.м.	Sijua mine, Sijua P. O., Bihar and Orissa.	Tata Iron and Steel Co., Ld.	Gurda Gope, (m.), 22, Stone-culler.	Coal	Deceased was in the act of stepping out of a sinking bucket at the bottom of a shaft when a piece of stone fell and struck him on the head, killing him instantly. Inspection and inquiry made.

137	5th January, 4-30 а.м.	Kendwadih mine, Kusunda P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	Churaman Gope, (m.), 40, Trolleyman.	Coal	Deccased, instead of using the pass-bye, attempted to cross the bottom of a shaft. He was crushed under the descending cage, and sustained fatal injuries. Inspection and inquiry made.	
138	6th April, 7 a.st.	Jamadoba mine, Jamadoba P. O., Bihar and Orissa.	Tata Iron and Steel Co., Ld.	Komla Dhobi, (m.), 22, Hookman.	Coal	Deceased, while the cages were in motion, attempted to fill a vessel with water from the shaft sump. The descending cage struck him and crushed his head so severely that he was killed almost instantly. Inspection and inquiry made.	
139	19th October, 12-15 р.м.	Suratand mine, Jharia P. O., Bihar and Orissa.	Suratand Coal Co., Ld.	Imaman, (m.), 35, Fitter.	. Coal ,	Deceased who was standing on the platform of a shaft pump, 180 feet from the top of the shaft and 2 feet above the surface of the water, fell off the platform into the water and was drowned. Inspection and inquiry made.	
140	14th November, 5-30 A.M.	Bankola mine, Ukhra P. O., Bengal.	Burrakur Coal Co., Ld.	Jahuri Bauri, (m.), 43, Bankoman.	Coal	As a loaded cage in a winding shaft was coming up to the surface the two banksmen took hold of the loaded tub. The cage, however, did not land on the "keps", but descended about eighteen inches, causing both banksmen to slip. Their left legs were crushed between the cage and the landing platform. They were both injured and deceased died within a few minutes. Inspection and inquiry made.	
			BY EXP	PLOSIVES—(9 deaths).		• •	61
141	22nd January, 2 r.m.	Kalabagh mine, Kalabagh P: O., Punjab.	Government of India	Ida, (m.), 24, <i>Labourer</i> .	Salt	Deceased was seriously burnt by an accidental ignition of gun- powder by a fellow-worker. He died from his injuries six days later. Inspection and inquiry made.	ı
142	23rd March, 9-30 P.M.	Ghugus mine, Ballarpur P. O., Central Provinces.	Sir K. C. Daga & Bros. and Sir M. B. Dadabhoy	Babli Malloo, (m.), 13, Labourer.	Coal	Deceased found a detonator and, whilst he was handling it, it exploded. He sustained injuries to which he succumbed on the next day. Inspection and inquiry made.	
143	13th April, 9 ▲.M.	Baidyanathpur mine, Pandaveswar P. O., Bengal.	Samia Govindpur Collieries, Ld.	Upendra Bauri, (m.), 36, Coal-cutter.	Coai	Deceased received ten pounds of gun powder to be manufactured into cartridges for use underground. Instead of making the cartridges in the room provided for the purpose he took the powder home to his village. Whilst he and two other miners were making the cartridges, a spark from a pipe or the fire ignited the gunpowder which exploded and burnt them severily. Deceased died four days later as a result of his burns. His	
144	7th July, 3-30 p.m.	South Bulliaree mine, Kusunda P. O., Bihar and Orissa.	East Indian Coal'Co., Ld.	Jahari Painka, (m.), 72, Coal-cutter.	Coal	companions recovered. Inspection and inquiry made. Deceased, while leaving his working place, was struck by a piece of coal from a shot fired by a fellow workman. He was killed instantly. Inspection and inquiry made.	

Fatal Accidents, 1922—contd.

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orial No.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, scx, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
			BY EXPLOSIVES-	-(9 deaths)contd.		· · · · · · · · · · · · · · · · · · ·
145	llth August, l г.м.	Kargali mine, Bokaro P. O., <i>viá</i> Mohuda, Bihar and Orissa.	Great Indian Peninsula Railway Co.	Jheria, (m.), 28, Quarryman.	Coal	Deceased, whilst engaged in breaking up with a hammer larg stones produced by blasting in a quarry, appears to have struc a dynamite cartridge. An explosion occurred, and he wa injured so severely that he died five days later. Inspectio and inquiry made.
146	8th September, 5-40 p.m.	Bankola mine, Ukhra P. O., Bengal.	Burrakur Coal Co., Ld.	Banshi Gope, (m.), 32, Coal-cutter.	Coal	Deceased took a canister containing seven cartridges of gunpowde into his dwelling and placed it beneath an open lamp hangir on the wall. He opened the canister to put in some fuse whe sparks from the lamp fell on the gunpowder and ignited i Deceased was seriously burnt and died three days later. An other man was seriously burnt. Inspection and inquiry mad
147	2nd October, 1-15 P.M.	Khewra mine, Khewra P. O., Punjab.	Government of India	Md. Bux Karim, (m.), 25, Miner.	Salt	Whilst deceased was drying damp fuse sticks over a lamp th became ignited. He threw them away and they fell on an op powder bag which also took fire. Deceased and two other m were burnt. He died five days later. Inspection and inqui made.
148	14th Decomber, 12 P.M.	Chandametta mine, Parasia P. O., Central Provinces.	Pench Valley Coal Co., Ld.	Barati Gond, (m.), 36, Coal-culler.	Coal	During blasting operations in his working place, deceased went a sat opposite an old gallery which was being connected with t gallery in which shot-firing was being done. He was stru on the head by a piece of coal and sustained a fractured sku He died six days later. Inspection and inquiry made.
149	27th December, 4-30 P.M.	Jharia Khas mine, Jharia P. O., Bihar and Orissa.	Standard Coal Co., Ld.	Gobinda Chamar, (m.), 20, Coal-cutter.	Coal	Deceased, while ascending a shaft, allowed his lamp and gunpowde tin to fall to the bottom of the cage. The gunpowder ignite and deceased received burns from which he died. Inspectio and inquiry made.

	1	1	IRRUPTIONS	OF WATER-(1 death).	1		
150	2nd August, 4 F.M.	Kustore North mine, Kusunda P. O., Bihar and Orissa.	Kosoonda and Nayadee Col- lieries, Ld.	Samee Kamin, (f.), 30, Coal-carrier.	Coal	Deceased and nine other women accompanied by a Sirdar were coming out of an incline at the end of the shift when they were met by a sudden inrush of water due to the breaking of a pro- tective bund as the result of heavy rains. Deceased was carried away by the rush of water and was either drowned or died of the injuries she received. The other persons escaped. Inspection and inquiry made.	
			HAUL	AGE-(20 deaths).			
151	20th February, 4-30 A.M.	South Govindpur mine, Katrasgarh P. O., Bihar and Orissa.	South Govindpur Colliery Ld.	Tokhan Bhuia, (m.), 28, Coal-cutter.	Coal	Deceased was standing on a slightly inclined road between loaded tubs when another loaded tub ran away from inbye and collided with the tubs, crushing him so soverely that he died soon after- wards. Inspection and inquiry made.	
152	20th February, 12 A.M.	South Bulliarce mine, Kusunda P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	Hari Lall, (m.), 25, Haulage Engineman.	Coal	Deceased was caught by the rope of an endless haulage and pulled on to the haulage pulley. He was so badly mutilated that he died almost instantly. Inspection and inquiry made.	
153	22nd February, 1-30 г.м.	Chandametta mine, Pench P. O., Central Provinces.	Pench Valley Coal Co., Ld.	Permasher Nai, (m.), 25, Timberman.	Coal ,	Whilst an empty tub was being taken down an incline it ran wild and overturned on the level road at the foot of the incline. Deceased, who was passing, was struck by the tub and fatally injured. Inspection and inquiry made.	
154	24th Fobruary, 10 р.м.	Khost mine, Khost P. O., Baluchistan.	North Western Railway	Sikander Sulia, (m.), 18, Signaller.	Coal	Whilst a train of four tubs was being lowered in a shaft or haulage slope inclined at 50 degrees derailment took place. Deceased, who was riding in one of the tubs, was crushed against the shaft timbering and killed. Inspection and inquiry made.	•
155	2nd March, 4 P.M.	Kirkend mine, Kusunda P. O., Bihar and Orissa.	Kirkend Coal Co.	Rijbu Manjhi, (m.), 32, Coal-cutter.	Coal	Whilst deceased and others were loading a train of seventeen tubs at the bottom of a dip ha lage road one of the tubs became derailed causing the whole train to move downhill. Deceased, in trying to escape was caught between one of the tubs and another train of loaded tubs standing alongside. He was so severely crushed that he died almost immediately. Inspection and inquiry made.	`
156	7th Maroh, 3 p.m.	Khewra mine, Khewra P. O., Punjab.	Government of India	Alam, (m.), 50, Mule-driver.	Salt	Deceased was in charge of a train of three loaded trucks. His foot alipped off the brake and was orushed between the brake band and the wheel. He died a fow days later. Inspection and inquiry made.	•
157	29th March, 1-15 p.m.	Bawdwin mine, Namtu P. O., Northern Shan States, Burma.	Burma Corporation, Ld.	Prodhan Singh, (m.), 22, Brakesman.	Silver-lead- zinc.	Whilst engaged in coupling ore cars deceased was crushed be- tween a car and a timber support. He was killed instantly.	

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Serial No.	Date and hour of accident.	Name and situation of mine. Name of owner. occupation of person min		Name of mineral wrought.	Cause of accident and remarks.	
			HAULAGE—(21) deaths)—contd.		
158	4th April, 8 a.m.	Churulia mine, Charanpur P. O., Bengal.		Dhaju Manjhi, Coal (m.), 20, Coal-cutter.		The banksman at the entrance to a haulage incline having omitte- to close the stop block and open the runaway switch, an empt tub ran away down the incline and struck deceased, wh was walking down the haulage road. He sustained seriou internal injuries and died five hours later. Inspection an inquiry made.
159	5 P.M. Mohuda P. O., Bihar and Orissa.		Bengal Bhatdee Coal Co., Ld.	Nakul Pudder, (m.), 25, Trolleyman.	Coal	Deceased was pulling on the front tub of a set of five in order t assist it round a curve in a haulage road when the tub left th rails and upsetting, pinned him underneath it. He receive injuries from which he afterwards died. Inspection and inquir made.
160	4th May, 8 а.м.			Ramabatar Noonia, (m.), 14, Coal-carrier.	Coal	The front tub of a train of empty tubs became detached and ra wild down a haulage incline. It left the rails and struck do ceased, causing injuries which resulted fatally next morning Inspection and inquiry made.
161	16th May, 4 P.M.	Bawdwin mine, Namtu P. O., Northern Shan States, Burma.	Burma Corporation, Ld.	Low Hlu, (m.), 22, Brakesman.	Silver-lead- zino.	Whilst deceased was attempting to couple ore cars he was orushe between the cars and a post. He sustained fatal injuries.
162	16218th May, 9 A.M.Bokaro Jharia mine, Nawagarh P. O., Bihar and Orissa.Agarwalla Bros.		Dalu Chamar, (m.), 45, Coal-cutter.	Coal	Whilst a train of empty tubs was being lowered down an inclin- the leading tub became uncoupled and ran wild. Decease who was sitting at the entrance to a level, was struck by th tub and died two hours later. Inspection and inquiry made.	
163	163 3rd August, 3-45 P.M. Khewra mine, Funjab. Government of India		Khan, (m.), 35, Labourer.	Salt	During the re-railing of some loaded tubs, deceased slipped an was struck by the locomotive. He received injuries from which he died shortly after. Inspection and inquiry made.	
164	7th August, 10 A.M.	Sutikdih mine, Patherdih P. O., Bihar and Orissa.	Sutikdih Coal Co., Ld.	Pariag Padder, (m.), 35, Mason.	Coal	Deceased was presumed to have jumped on to a moving set tubs which was being hauled up an incline. He struck h head against the roof timbers and received injuries from which he died a few hours later. Inspection and inquiry made.

Fatal Accidents, 1922-contd.

165	10th August, 4-30 P.M.	Ledo Valley mine. Margherita P. O., Assam.	Assam Railways and Trading Co., Ld.	Mahomed Makrani, (m.), 33, · Labourer.	Coal	Deceased was run over and killed by a runaway tub on a gravity incline underground.
166	30th August, 5-30 4-14.	Kurkend mine, Kusunda P. O., Bihar and Orissa.	Marine Coal Co., Ld.	Moshari Rajwar, (m.), 35, Trolleyman.	Coal	Deceased, who was supposed to have been asleep at the foot of a haulage incline, was struck by one of a set of five tubs which became uncoupled at the top and ran wild down the incline. He died from his injuries shortly afterwards. Inspection and inquiry made.
167	6th September, 7-30 A.M.	South Goluckdih mine, Jhariz P. O., Bihar and Orissa.	South Goluckdih Coal Co.	Narain Sirdar, (m.), 50, Sirdar.	Coal	Deceased was struck by one of a set of seven tubs which ran wild on an incline as the result of the breaking of the drawbar of the topmost tub. He was killed almost instantly. Inspec- tion and inquiry made.
168	8th October, 2 P.M.	Mohpani min 3, Mohpani P. O., Central Provinces.	Great Indian Peninsula Rail- way Co.	Kalari Kewat, (m.), 14, Coal-carrier.	Coal	Deceased was run over and killed by a train of tubs as it entered an underground loading station. Inspection and inquiry made.
169	17th November, 12-15 A.M.	Bawdwin mine, Namtu P. O., Northern Shan States, Burma.	Burma Corporation Ld.	Chur Singh, (m.), 25, Motor-driver.	Silver - lead - zinc.	Whilst deceased was driving an electric locomotive on an under- ground tramway, derailment, due to excessive speed, took place, and he was crushed between the locomotive and the timbering of the roadway. The injuries proved fatal.
170	21st November, 4-30 P.M.	Khewra mine, Khewra P. O., Punjab.	Government of India ,	Raja, (m.), 25, Mule-driver.	Salt	Deceased was knocked down and fatally injured by a runaway mule.
			UNDERGROUND MACE	 IINERY(2 deaths).		
171	30th January, 11-45 A.M.	Jamadoba mine, Jamadoba P. O., Bihar and Orissa.	Tata Iron & Steel Co., Ld.	B. P. Rander, (m.), 25, Coal-cutter Foreman.	Coal	Deceased was caught by the cutter picks of a coal-cutting machine and dragged under the coal. He received injuries from which he afterwards died. Inspection and inquiry made.
172	27th June, З а.м.	Bawdwin mine, Namtu P. O., Northern Shan States, Burma.	Burma Corporation, Ld.	Kunchi Krishnan Nair, (m.), 20, Miner.	Silver - lead - zino.	The belt driving a ventilating fan broke. Deceased, who was standing near by, but outside the fence, was struck by the belt, and sustained fatal injuries.
			SUNDRIES UNDERG	I ROUND-(8 deaths).		
173	7th February, 9 p.m.	Bawdwin mine, Namtu P.O., Northern Shan States, Burma.	Burma Corporation, Ld.	Law Kyan, (m.), 26, Miner.	Silver - lead - zinc.	Deceased fell down an ore chute and sustained fatal injuries.

Fatal Accidents, 1922-contd.

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Serial Number,	Date and hour of accident.	Name and situation of mine.	Name of owner.	me of owner. killed.		, Cause of accident and remarks.
· ·			SUNDRIES UNDERGROU	I)(D-(8 deaths)-contd.		• •
174	17th February, 3-30 д.м.	Khoodia mine, Mugma P. O., Bihar and Orissa.	Khoodia Coal Co., Ld.	Chota Khara Manjhi, (m.), 27, Coal-cutter.	Coal	Decreased was standing on a loaded tram cutting roof coal, when a piece of coal $18^{\prime} \times 12^{\prime} \times 12^{\prime}$ fell from a height of 6 feet on to his legs. In trying to avoid it he stepped backwards and fell over the side of the tram on to some pieces of coal. His spine was fractured and he died two hours later. Inspection and inquiry made.
175	·ōth July, 4 ⊥.11.	Bawdwin mine, Namtu P. O., Northern Shan States, Burma.	Burma Corporation, Ld.	Kaloomarana, (m.), 19, Trucker.	Silver-lead- zine.	Deceased was crushed between a truck and the timbering on an underground tramline. His injuries proved fatal.
176	8th July, 4-35 p.m.	Bararee mine, Jamadoba P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	East Indian Coal Co., Ld. Fagua Kandoo, (m.), 34, Trolleyman.		Deceased was assisting to replace a derailed tub on an under- ground tramline. His foot slipped and the wheel of the tub struck him on the leg fracturing it. Three days later he died from shock following amputation. Inspection and inquiry made.
177	I2th September, 9 д.м.	Bhalgora mine, Jharia P. O., Bihar and Orissa.	Bhalgora Coal Co., Ld.	Baroo Kauri, (m.), 22, Propping Mistry.	Coal	Deceased and seven other workmon were engaged in setting a prop in a seam 24 feet high. The prop swayed and fell, and, striking another prop 20 feet away, knocked it out. The end of the second prop atruck deceased on the head with such force that he was rendered unconscions and died a few hours later from concussion of the brain. Inspection and inquiry made.
178	17th November, 11-30 д.м.	Govindpur mine, Katrasgarh P. O., Bihar and Orissa.	Govindpore Coal Co., Ld.	Chaman Bhuiya, (m.), 25, Trolleyman.	. Coal	Deceased was crushed between tubs on an underground tramway, sustaining injuries from which he died two days later. Inspec- tion and inquiry made.
· 179	23rd November, 7 A.M.	Bararee mine, Jamadoba, P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	Somaru, (m.), 18, Coal-culler.	Coal	Deceased was loading coal which had been brought down by blast- ing, when a large pieces of coal, weighing about 4 cwt., slipped down from a heap and fell upon him. He sustained injuries which caused death within a few hours. Inspection and in- ' quiry made.

180	28th November, 9-30 A.M.	Bhalgora mine, Jharia P. O., Bihar and Orissa.	Bhaigora Coal Co., Ld.	Somar Kandu, (m.), 38, Labourer.	Coal	Deceased was assisting seven other coolies in carrying a part of a steam pump when he complained of over exertion. He was taken to hospital where he died three days later from the effect of the overstrain. Inspection and inquiry made.	
	•		SURFACE MACH	NERY—(3 deaths).	•		
181	10tk July, 6-5 р.м.	Salanpur mine, Salanpur P. O., Bengal.	Borres Coal Co., Ld.	Dubraj Bauri, (m.), 17, Labourer.	Coal	Deceased became entangled in a revolving shaft driving workshop machinery. He was killed instantly. Inspection and inquiry made.	•
182	23rd August, 2-30 P.M.	Bararee mine, Jamadoba P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	Tejoo Meah, (m.), 56, , Underground Head Sirdar.	· Coal	Deceased was one of four men who were raising a long and heavy column of steam pipes by means of a hand winch. The strain on the rope proved too much for the men and they let go of the handles, one of which struck deceased on the head with such force as to kill him instantly. Inspection and inquiry made.	
183	25th October, 12-15 р.м.	Kustore North mine, Kusunda P. O., Bihar and Orissa.	Rancegunge Coal Association, Ld.	Babu Lall, (m.), 16, Labourer.	Coal	Deceased who was apparently under the influence of drink, at- tempted to interfere with an endless rope haulage engine whilst it was in motion. He was caught by the flywheed and killed instantly. Inspection and inquiry made.	-
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		•	ON SURFACE, RAILWAY BELONGING TO THI	/S AND TRAMWAYS E MINE—(7 deaths).	,		67
184	14th January, 10-20 а.м.	Bokaro mine, i Bokaro P. O., ¹ Bihar and Orissa.	East Indian Railway Co. and Bengal Nagpur Railway Co.	Sobilal Chamar, (m.), 32, Trolleyman.	Coal	The front coupling of a tub accidently caught in the top of a creeper chain, tilting the rear of the tub violently. The deceased, who clung to the back of the tub, was thrown through or over the fencing, falling to the ground 20 feet below. He died three days later. Inspection and inquiry made.	
185	2nd February, 10-30 A.M.	South Kujama mine, Jharis P. O., Bibar and Orissa.	Bagdigi Kujama Collieries, Ld.	Sanichar Dosad, (m.), 28, Trammer.	Coal	Deceased, while pushing a loaded tub, was struck by a second loaded tub pushed from behind. He received spinal injury from the effects of which he died two days later. Inspection and inquiry made.	•
186	20th February, 10-45 A.M.	Serampur mine, Giridih, P. O., Bihar and Orissa.	East Indian Railway Co.	Hiro Turi (m.), 35, Labourer.	Coal	Deceased attempted to cross in front of a locomotive. He was knocked down and run over and sustained injuries from which he died shortly afterwards. Inspection and inquiry made.	
187	29th April, 12-30 а.м.	Golukdíh mine, Jharís P. O., Bibar and Orissa.	N. M. Choudhuri & Co.	Jhari Bhula, (m.), 30, <i>Labourer</i> .	Coal	Deceased attempted to hoard a colliery locomotive while it was in motion. He fell in front of the wheels and received injuries from which he afterwards died. Inspection and inquiry made.	
188	2nd May, 5-30 r.m.	Bokaro mine, Bokaro P. O., Bihar and Orissa,	East Indian Railway Co. and Bengal Nagpur Railway Co.	Bahadur Raot, (m.), 42, Coal-cutter.	Coal	Deceased was knocked down and run over by a train of six tubs on a surface tramline. He sustained injuries which caused death within a few hours. Inspection and inquiry made.	

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Fatal Accidents, 1922-contd.

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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 wrought.	Cause of accident and remarks.	
	1		on Surface, Railways Belonging to 2	i AND TRAMWAYS FHE MINE-(7 deaths)-cont		
189	3rd Мау, 12-30 г.м.	Khoodia mine, Mugma P. O., Bihar and Orissa.Khoodia Coal Co., Ld.Surendra Kahar, (m.), 35, Surface trolleyman.		(<i>m</i> .), 35,	Coal	Deceased in attempting to mount the front buffer of a loaded tu which was running down a slight gradient, slipped and fel The front wheel of the tub passed over his leg. He sustaine a severe wound and died from tetanus eighteen days late Inspection and inquiry made.
190	15th October, 8-30 А.м.	Shivrajpur mine, Shivrajpur P. O., Panch Mahals, Bombay Presidency.	Shivrajpur Syndicate, Ld.	Ramadhin Mahadev, (m.), 32, Labourer.	Manganese ore	A truck ran wild on a slight gradient. Deceased, in trying to sto it, was struck down and killed.
			- ELE(TRICITY—(3 deaths).		•
191	19th Мау, 2-30 л.м.	Aldih mine, Sitarampur P. O., Bengal. j	Aldih Coal Co., Ld.	Ratan Gope, (m.), 38, Head Tindal.	Coal	An electrically driven pump had been lowered to a new position in a dip gallery underground. When all the connections were completed the electric fitter went to a fuse box some 200 yard away to switch on the current. The result was that severe persons, who were handling the main cable at the time, receive a severe shock and deceased, who was sitting dow close to the switch box by the pump, also received a shoc and was killed. The accident was due to a defective fuse-bo and unsatisfactory earthing arrangements. Inspection and inquiry made.
192	6th July, 5 p.m.	Bhelatand mine, Sijua P. O., Bihar and Orissa.	Tata Iron & Steel Co., Ld.	Hanif Meah, (m.), 8, Not employed.	Coal	Deceased was found in contact with one of the conductors of an overhead transmission line which had broken and was lying on the ground. Death was due to electrocution. Inspection and inquiry made.
193	17th July, 10 д.н.	Jamadoba mine, Jamadoba P. O., Bihar and Orissa.	Tata Iron & Steel Co., Ld.	Puarh Singh, (m.), 32, Labourer.	Coal	Deceased was one of a gang of coolies working on a sub-station in course of erection. Apparently for the purpose of reaching the other side of the building he walked along the top of one of the walls and touched the conductors of an overhead line carrying current at about 500 volts pressure which were only about 5' 6' in height at that point. He fell a distance of 16 feet and died almost at once. Inspection and inquiry made.

		1	MISCELLANEO	US ON SURFACE-(12 deal	ha).
194	22nd January, 12 A.M.	Jamebari mine, Scarsol P. O., Bengal.	Srimati Nistarini Dassi	Ramprosad Bhor, (m.), 45, Underground Sirdar.	Coal
19 5	22nd February, 4 A.M.	Saltore mine, Dishergarh P. O., Bihar and Orissa.	Burrakur Coal Co., Ld.	Nitai Kuloo Garai, (m.), 38, Trammer.	Coal
196	lst March, 8-30 д.м.	Hlaygadaung mine, Palauk P. O., Burma.	Hlaygadaung Concessions, Ld.	Bishun Sui, (m.), 50, Labourer.	Tin & Wolfram ores
¹ 197	Ist April, 10-30 a.M.	Central Kurkend mine, Kusunda P. O., Bihar and Orissa.	Central Kurkend Coal Co., Ld.	Gour Punjabi, (m.), 50, Labourer.	Coal
109	25th April, 11-15 л.м.	Dishergarh West mine, Dishergarh P. O., Bengal.	Equitable Coal Co., Ld.	Ismile Mistry, (m.), 32, Mason.	, Coal ,
. 199	27th Мау, 9 р.м.	Lalpoth mine, Chanda P. O., Central Provinces.	J. V. Padamsey & Co.	Ramsahaya, (m.), 35, Peon.	Coal
20 0	80th June, 3-30 r.m.	Aldih mine, Sitarampur P. O., Bengal.	Aldih Coal Co., Ld.	Raghu Turi, (m.), 24, Labourer.	Coal
201	80th June, 5 р.м.	Asakuti mine, Katrasgarh P. O., Bihar and Orissa.	Royal Coal Co., Ld.	Tara Manjhi, (m.), 24, Ooal-cutter.	Coal
202	31st July, 1-30 а.м.	Bhaga mine (Lodna Nos. 4 & 5 pits), Jharia P. O., Bihar and Orissa.	Lodna Colliery Co., (1920) Ld.	Alladin, (m.), 29, Labourer.	Coal
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Deceased was washing himself outside a bathing ta	nk when the
walls of the tank, which were 7 feet high, burst.	One of the
walls fell on to deceased killing him instantly. and inquiry made.	Inspection

Deceased went through a fence and jumped into a bunker, containing about 25 tons of sand, in order to recover a piece of cloth which had fallen. He was buried by the running sand and suffocated before he could be rescued. Inspection and inquiry made.

Whilst at work in an open excavation in alluvial ground deceased lost his balance and fell a distance of about 7 feet. He sustained ruptures of the spleen and of a blood vessel, and died shortly after.

- Deceased was engaged in fastening a clamp on a guide rope which was being tightened by a winch rope. The winch rope was detached from the guide rope before the clamp was secured. The guide rope slipped through the clamp and struck deceased, who was sitting on two cross-beams supporting the clamp, knocking him down the shaft. He was killed instantly. Inspection and inquiry made.
- Deceased was working on a ladder reared against the wall of a building. He overbalanced and fell a distance of 21 feet to the ground below, and was killed instantly. Inspection and inquiry made.

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Deceased was giving out oil to miners by the light of a lamp. The oil caught fire and his clothes became ignited. He sustained burns which proved fatal.

Whilst engaged in oiling the bearings of the pulley on the top of a pithead frame, deceased fell through an opening in the platform on to the banking platform 29 feet below. He sustained injuries from which he died a few hours later. Inspection and inquiry made.

- Deceased was ascending the open outting of an incline at the end of his day's work when the incline wall and a mass of earth weighing several tons fell on him, and killed him. Inspection and inquiry made.
- A column of steam pipes in a shaft, 345 feet deep, was being dismantled by raising one pipe at a time by means of a hand winch on the surface. Apparently while being raised the pipe jammed on the rest of the column, and the stress became sufficient to break the winch rope between the winch and the head gear. The loose end of the rope coiled round deceased, who was standing close to the shaft mouth and orushed him so badly that he died almost immediately. Inspection and inquiry made.

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Fatal Accidents, 1922-contd.

Serial Number.	Date and hour of accident,	Name and situation of mine.	Name of owner.	Namo, sex, age and occupation or person killed.	Name of mineral wrought.	Cause of accident and remarks.
			MISCELLANEOUS O	N SURFACE—(12 deaths)—	contd.	
. 203	3rd September, 11-45 д.м.	Shivrajpur mine, Shivrajpur, P. O., Panch Mahals, Bombay Presidency.	Shivrajpur Syndicate, Ld.	Girdhari Pema, (m.), 16, Labourer.	Manganese ore	Deceased was in a tunnel leading to a quarry and was about 15 feet from the portal. A rock, weighing some 5 cwt., was dislodged from the side of the quarry by workmen. This rock rolled into the tunnel and struck deceased causing fatal injuries.
204	7th November, 4 a.m.	Searsol Khas mine, Searsol P. O., Bengal.	S. Bagchee & Co., and Rani Shyama Sundari Debi.	Kuchla Bauri, (m.), 31, Pumpman.	Coal	Whilst deceased was sleeping under a shed the posts supporting the shed collapsed. The roof fell upon him. causing injuries from which he died shortly after. Inspection and inquiry made.
205	10th November, 3 P.M.	Centrai Kurkend mine, Kusunda P. O., Bihar and Orissa.	Central Kurkend Coal Co., Ld.	Tula Ram, (m.), 60, Labourer.	Coal	Deceased was cutting earth close to or under a conical stack left for the purposes of measurement when the stack collapsed and fell on him. He sustained an injury to the brain. Irom the effects of which he died about three weeks later. Inspection and inquiry made.
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Fatal Accidents, 1922-contd.

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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 wrought.	Reason for exclusion.	Cause of accident and remarks.
			DEATHS NOT IN	CLUDED IN THE STA	- .TISTICS-(51	deaths).	
1	Between 5th & 7th January, Unknown.	Central Sonardih mine, Katrasgarh P. O., Bihar and Orissa.	Central Sonardih Coal Concern	Buduram Brahmin, (m.), 22, Peon.	Coal	Not a mining accident	The body of deceased was found floating in a waterlogged inclin Inspection and inquiry made.
2	lâth January, З р.м.	Shivrajpur mine, Shivrajpur P. O., Panch Mahala, Bombay Presidency.	Shivrajpur Syndicate, Ld.	Jumi Natha, (f.), 4.	Manganese ore	Not employed	Deceased accompanied her father who had been instructed to ta shelter behind a wall whilst blasting operations were going at a point some 200 feet distant. She was struck by flyi debris and killed. Inspection and inquiry made.
3	10th January 9-40 д.м.	Kutchee Dhana mine, Ramkona P. O., Central Provinces.	Indian Manganese Co., Ld.	Miru, (f.), 4.	Manganese ore	Not employed	Deceased was run over whilst attempting to cross a surface tra- line. Her injuries proved fatal.
4	23rd January, Unknown.	Jogta mine, Sijua P. O., Bihar and Orissa.	Agabeg Bros.	Ramsuden Singh, (m.), 35, Peon.	• Coal	Not a mining accident	Deceased and another person went to sleep in a room in which open fire was burning. As all means of ventilation were clo he was asphyxiated. The other person recovered. Insp tion and inquiry made.
5	26th January, 5 г.м.	Bansdeopur mine, Kusunda P. O., Bihar and Orissa.	Bansdeopur Coal Co., Ld.	Mohan Meah, (m.), 3.	Coal	Not employed	Deceased accompanied his parents who wore working in a qua He strayed beneath overhanging debris, which fell on h He received injuries from which he afterwards died. Ins _tion and inquiry made.
6	27th January, 1-30 а.м.	Ghusick mine, Kalipahari P. O., Bengal.	Ghusick Coał Co.	 Huroo Pundit, (f.), 6. Muni Pundit, (m.), 45, Brick-maker. 	Coal .	Not a mining accident	The deceased were sleeping in their hut, when a spark from a outside set on fire the straw thatched roof. Huroo was but to death and Muni was severely burnt, dying in hospital days later. Inspection and inquiry made.
7	29th January, 3 a.m.	Harriladih mine, Jharia P. O., Bihar and Orissa.	Equitable Coal Co., Ld.	Moglar Gwalor, (m.), 25, Peon.	Coal	Not a mining accident	Deceased lay down in a room in which a coke fire was burn The doors and windows being closed, there was no ventilat and he was asphyxiated. Inspection and inquiry made.

Fatal Accidents, 1922-contd.

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rial nber.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Reason for exclusion.	Cause of accident and remarks.
			DEATHS NOT INCLU	DED IN THE STATIST	 FICS—(51 deat	hs)—contd.	· · · · · ·
8	6th March, 2 p.n.	Tiara mine, Jharia P. O., Bihar and Orissa.	Amarsingh Gowamal	Somaria Malla, (f.), 70	Coal	Not employed	Whilst drawing water from a well about 50 feet deep, and contain- ing 3 feet of water, deceased overbalanced and fell to the bottom. She died a few minutes after being rescued. Inspection and inquiry made.
9	Unknown.	Budroochuck mine, Sijua P. O., Bihar and Orissa.	Budroochuck Coal Min- ing Co. Ld.	Unknown, (m.), Unknown.	• Coal	Not employed	Deceased was found dead at the bottom of a subsidence caused by mining operations. The subsidence had been fenced. In- spection and inquiry made.
10	19th March, 12-30 г.м.	Ramnagar mine, Pandaveswar P. O., Bengal.	Samla Ramnagar Collie- ries, Ld.	Kanai Dhangor, (m.), 9.	Coal	Not employed	A woman who was carrying a basket of stone out of a shallow cutting on the surface, stumbled and a piece of stone fell out of the basket. The stone struck deceased on the head inflicting serious injury to which he succumbed soon afterwards. Inspec- tion and inquiry made.
11	21st March, 9 г.м.	Kendwadih mine, Kusunda P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	Agni Hazra., (f.), 9,	Coal	Not employed	Deceased fell into a boiler feed tank and was drowned. Inspection and inquiry made.
12	31st March, 1 P.M.	New Kusunda mine, Kusunda P. O., Bihar and Orissa.	New Kusunda Colliery, Ld.	Chulan Mahato, (m.), 22, Hookman.	Coal	Not a mining accident	Whilst bathing in a portion of an abandoned quarry deceased was drowned. Inspection and inquiry made.
13	6th April, 1-30 р.м.	Searsol mine, Raniganj P. O., Bengal.•	Searsol Coal Co., Ld.	Parga Manjhi, (m.), 35, Coal-cutter.	Coal	Not a mining accident	Deceased, despite attempts to prevent him, jumped over the fence around the top of a winding shaft and fell to the bottom, a distance of 217 feet. He was killed instantly. Inspection and inquiry made.
14	12th April, 2 г.м.	Karmatand mine, Nawagarh P. O., Bihar and Orissa.	Sreeram Coal Co.	Suku Mahato, (m.), 30, Agriculturist.	Coal	Not employed	Deceased was robbing coal in a disused quarry when a mass of overburden, $17' \times 7' \times 3'$, fell and burief him. He was killed instantly. Inspection and inquiry made,

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15	19th April, 7-30 p.m.	Angarpathra mine, Katrasgarh P. O., Bihar and Orissa.	National Coal Co., Ld.	Kazim Khan, (m.). 46, Walchman.	Coal	Not a mining accident	Whilst in his living quarters the spilling of a lamp caused the clothing of deceased to catch fire. He sustained serious burns and died of heart failure ten days later. Inspection and in- quiry made.
16 v	Found at 2 P.M., on 22nd April.	Durgapur mine, Chanda P. O., Central Provinces.	Chanda Coal Prospecting Syndicate, Ld.	Pochi, (f.), 7.	Coal	Not employed	Deceased was found drowned in a water tank. The tank was fenced.
17	3rd Мау, 7-30 а.м.	Dandot mine. Dandot P. O., Punjab.	Rai Sahib Thakur Das Ramji Das.	Mahomed, (m.), 50.	Coal	Not employed	Whilst attempting to cross a self-acting incline on the surface, deceased was run over by a train of tubs. He sustained fatal injuries.
18	28th Мау, 9-30 г.м.	Ramnagar mine, Kulti P. O., Bengal.	Bengal Iron Co., Ld.	Panchanan Maity, (m.), 15. Patal Tamuli, (m.), 28. Radha Nath Ghosh, (m.), 26.	Coal	Not a mining accident	A train of twenty loaded coal tubs was being drawn from a colliery to an ironworks. When it was passing the points of a branch line the thirteen rear tubs switched up the branch line and became derailed. The deceased persons, who were riding on the tubs against orders, were thrown off and fatally injured. Inspection and inquiry made.
19	31st Лау, 9 л.м.	South Bulliarce mine, Kusunda P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	Brihospot Dusad, (m.), 32, Onsetter.	Coal	Not a mining accident	Deceased was found drowned in a boiler feed tank. Inspection and inquiry made.
20	19th June, 6 г.м.	Sijua mine, Sijua P. O., Bihar and Orissa.	Tata Iron & Steel Co., Ld.	Somi Beldarin, (f.), 8.	Coal	Not employed	Deceased fell into a boiler feed tank and was drowned. Inspec- tion and inquiry made.
21	23гд June, 6-30 р.м.	Kajora mine, Ondal P. O., Bengal.	Guzdar, Kajora Coal Co.	Surendra Bauri, (m.), 18. Labourer.	Coal	Not a mining accident	Deceased was unloading coal at a colliery wharf when he was struck by lightning and killed instantly. Inspection and inquiry made.
22	28th June, 4-30 а.м.	Dumarkunda mine, Barakar P. O., Bihar and Orissa.	Bengal Çoal Co., Ld.	Jogin Deghoria, (m.), 46.	Coal	Not employed	Deceased was crossing a field when he appears to have tripped over and fallen upon, the bare conductors of an electric trans- mission line which were sagging close to the ground, owing to a branch having fallen and broken the line at the next span. He was found lying on one of the conductors, and had probably received a shock at approximately 300 volts pressure to earth. Inspection and inquiry made.
23	8-30 р.м.	Benidih mine, Jharia P. O., Bihar and Orissa.	Benidih Colliery, Ld.	Phuiny Beldarin, (f.), 35, Coal-carrier.	Coal	Not a mining accident	A woman, drawing water from a waterlogged quarry, fell into the water and was drowned. Inspection and inquiry made.
24	й 16th July, 8 д.м.	Simlabahal mine, Jharia P. O., Bihar and Orissa.	Bhalgora Coal Co., Ld.	Kashi Ram Kahar, (m.), 14, Labourer.	Coal	Not a mining accident	Deceased was found drowned in a boiler feed tank. Inspection and inquiry made.

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Fatal Accidents, 1922-contil.

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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 wrought.	Reason for exclusion.	Cause of accident and remarks.
-			DEATHS NOT INCLU	DED IN THE STATE	STICS-(51 de	aths)—conid.	
25	23rd July, 10-30 ձ.ы.	East Nandi mine, Toposi P. O., Bengal.	H. F. Pilcher	Khudu Baurin, (f.), 30, Coal-carrier.	Coal	Not a mining accident	Deccased was lying asleep beneath a railway wagon with her head on the rail. Another wagon was shunted against the first wagon and caused it to move. The head of deceased was crushed beneath a wheel. She died within a few minutes, Inspection and inquiry made.
26	24th July, 3 A.M.	Hermyingyi mine, Tavoy P. O., Burma.	Burma Finance and Min- ing Co., Ld.	Wong Hop, (m.), 30, Miner.	Tin and Wolfram ores	Not a mining accident	Deceased was asleep in a hut situated on a hill side, when a "land- slip" occurred. The hut was demolished and deceased buried. Ho sustained serious injuries and died a few hours later. In- spection and inquiry made.
27	3rd August, 8-30 A.M.	Hermyingyi mine, Tavoy P. O., Burma.	Burma Finance and Min- ing Co., Ld.	Mg. Pe, (m.), 24, Miner.	Tin and Wolfram ores	Not a mining accident	Deceased was proceeding to work up a steep hill side during a heavy rain storm. A "land-slip" occurred, and he was completely buried, sustaining fatal injuries. Inspection and inquiry made.
28	'3rd August, 8-30 г.м.	Chowrassie mine, Dishergarh P. O., Bihar and Orissa.	Equitable Coal Co., Ld.	Bucha Bauri, (m.), 30.	Coal	Not employed	Whilst passing by after dark deceased fell from the top of a retain- ing wall 10 feet high. He received injuries from which he died next day. Inspection and inquiry made.
2 9 ,	5th August, 2 P.M.	Khas Angarpathra mine, Katrasgarh P. O., Bihar and Orissa.	Khas Angarpathra Coal Co.	Janki Kuri, (m.), 8.	Coal	Not employed	Deceased was found drowned in a boiler feed tank. The tank was properly fenced. Inspection and inquiry made.
30	11th August, 5-30 P.M.	New Chandore mine, Katrasgarh P. O., Bihar and Orissa.	B. B. Trigunait	Sita Chamarin, (f.), 20, Coul-carrier.	Coal	Not a mining accident	Deceased fell into a well. 15 feet deep, and was drowned. Inspec- tion and inquiry made.
31	12th August, 5 р.м.	Asakuti mine, Katrasgarh P. O., Bihar and Orissa.	Parascole Coal Co., Ld.	Khari Bilaspuri, (f.), 2.	Coal	Not employed	Deceased was found drowned in an artificial excavation, 6 feet long and 2½ feet deep. Inspection and inquiry made.
• 32	14th August, 4 P.M.	Lodna mine, Jharia P. O., Bihar and Orissa.	Lodna Colliery Co., (1920) Ld.	Mahuri Musor Bhuiya (f.), 7.	Coal	Not employed	Deceased's log was caught between the incoming rope and the terminus wheel of a surface haulage. She received injuries from which she died three hours later. Inspection and inquiry made.

33	21st August, 5 p.n.	Banali mine, Raniganj P. O., Bengal.	Parascole Coal Co., Ld.	Samia Kolo, (f.), 2.	Coal	Not employed	Deceased was found drowned in a pool of flood water, 18 inches deep. Inspection and inquiry made.
34	22nd September. 5 P.M.	Karmatand mine, Nawacarh P. O., Bihar and Orissa.	Sreeram Coal Co.	Mullwa Mahara, (f.), 11.	Coal	Not employed	Deceased got over the wall fencing an incline, fell into accumulated water, and was drowned. Inspection and inquiry made.
35	24th September, 6 A.M.	West Bansjora mine, Bansjora P. O., Bihar and Orissa.	West Bansjora Coal Con- cern	Modho Beldar, (m.). 45, Coal-carrier.	Coal	Not a mining accident	Deceased, who appears to have been bathing in a water-logged quarry, went out of his depth and was drowned. Inspection and inquiry made.
36	10th October, 4 A.M.	Kajora mine, Ondal P. O., Bengal.	Guzdar, Kajora Coal Co.	Dulali Korani, (f.), 2 <u>1</u> .	Coal	Not employed	The deceased infant was sleeping beside her mother in a mine when a mass of roof coal, $2' \times 1'$ -6" $\times 5$ ", fell from a height of 13 feet. She received injuries from which she died an hour later. Two other persons were injured. Inspection and inquiry made.
37	21st October, 1 р.м.	Alkusa North mine, Kusunda P. O., Bihar and Orissa.	Rancegunge Coal Asso- ciation, Ld.	Lutchmania, (f.), 6.	Coal	Not employed	Deceased fell into a bathing tank and was drowned. Inspection and inquiry made.
38	27th October, 11-30 а.м.	Katras mine, Katrasgarh P. O., Bihar and Orissa.	Burrakur Coal Co., Ld.	Guli Gope, (m.), 40, Carter.	Coal	Not a mining accident	Deceased, who was apparently bathing at the edge of an old incline which was full of water, fell into the water and was drowned. Inspection and inquiry made.
39	6th November, 2-15 г.м.	Upper Mandra mine, Nawagarh P. O., Bihar and Orissa.	M. G. Roy	Kisari, (f.), 6.	Coal	Not a mining accident	Deceased whilst bathing fell into a quarry containing water to a depth of about 12 feet, and was drowned. Inspection and inquiry made.
40 ∎	27th November, Unknown.	Bolompore mine, Raniganj P. O., Bengal.	Bolompore Coal Co., Ld.	◆ Gobinda Prasad Gos- wami, (m.), 70.	Coal	Not employed	Deceased was found drowned in an old water-logged shaft, 60 feet deep. Inspection and inquiry made.
41	2nd December, 2 A.M.	Sendra mine, Bansjora P. O., Bihar and Orissa.	Sendra Coal Co., Ld.	Lashman Dosad, (m.), 24, Engine Khalasi.	Coal	Not a mining accident	Whilst he was sleeping indoors near a fire the clothing of deceased caught fire. He was severely burned and subsequently died.
42	l4th December, Unknown.	Ramjibanpur mine, Sitarampur P. O., Bengal.	Ramjibanpur Coal Co.	Jogi Dosad, (m.), 30.	Coal	Not employed	The body of deceased was found at the bottom of a disused shaft 75 feet deep. Inspection and inquiry made.

Fatal Accidents, 1922-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 wrought.	Reason for exclusion.	Cause of accident and remarks.	ŝ,
			DEATHS NOT INCLU	DED IN THE STATI	STICS—(51 de	aths)—concld.		
43	23rd December, 5-20 г.м.	Kustore North mine, Kusunda P. O., Bihar and Orissa.	Raneegunge Coal Asso- ciation, Ld.	Jagna Dosad, (m.), 14, * · Shale-picker.	Coal	Not a mining accident	Deceased was run over and killed during shunting operations on a surface railway not belonging to the mine. Inspection and inquiry made.	
44	28th December, 8-30 A.N.	West Tetturiya mine, Katrasgarh P. O., Bihar and Orissa.	West Tetturiya Collieries, Ld.	Radhia Bhuiya, (f.), 3.	Coal	Not a mining accident	The deceased sustained fatal burning injuries whilst at play near a domestic fire.	
45	28th or 29th Decem- ber, Between 9 P.M. and 6 A.M.	Kendwadih mine, Nawagarh P. O., Bihar and Orissa.	Kendwadi', Coal Co.,	Mongal Bhuiya, (m.), 36, Budu Bhuiya, (m.), 18, Sukar Bhuiya, (m.), 20, Jugan Bhuiya, (m.), 17, Labourers,	Coal	Not a mining accident	The four deceased were detailed to guard a partly unloaded covered truck of tramway sleepers. They went inside the truck, made a fire, closed all openings and went to sleep. Early next morn- ing they were found dead having been sufficiented by the fumes from the fire. Inspection and inquiry made.	70
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Table No. 2.

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, • 1901, during the year 1922.

			FAT	TAL AC	CIDEN	ITS.	SERI	0U8 A				'H-BATI	
		mber o ed daily	ofatal		IMBER (RATES.		a non-	PERSO	MBER (NS SERI	OUSLY	1,00	0 PERS	ONS
PROVINCE.	District and mineral field.	Total average number of persons employed daily.	Numbor of separato fatal accidents.	Bolow ground.	Above ground.	Total denths.	Number of serious non- fatal secidents.	Below ground.	Above ground.	Total number of persons in- jured.	Below ground.	Above ground.	Below and
				A.—C		-							
C	Lakhimpur	3,05T	7	4 7		- 7	49	39	10	49	3.34		2.2
 ۲۰۰۰ ۲	Naga Hills	556	1	1		1 -	1	2	••	2	3.80	••	1.8
	Sibsagar				·.							••	
-	TOTAL .	3,607	8	8	•••	8	50	41	10	51	3.39		2.5
ſ	Kalat	30	••	••	••	·	••					••	••
duchistan	Loralai	35			••		••	••	••	••		•••	
	Quetta, Pishin Sibi, Khost	157 1,032	2	2 16	••	2 16	 2		•	3	20-41 27-21	••	12. 15-
(TOTAL		4	 	••			<u> </u>		 	┨────	••	╬──
<u> </u>		1,254	6	18		18	2	3		3	24.79		14-3
ſ	Bankura, Raniganj	161			••		 						
ugal	Birbhum "	350		••	•• -	•••	••		••			••	•
l	Burdwan "	44,382	45	51	7	58	33	23	10	33	1-91	0-40	ŀ
	Total .	44,893	45	51	7	58	33	23	10	33	1-89	0-39	1.
	Bokaro .	9,947	4	2	2	4	8	2	. 6	8	0-37	0.44	0.
	Giridih .	7,229	3	- 2	2 1	3	17	14	3	17	0-45	0-36	0.
	Hazaribagh{ Jharia	2,501	3	3		3	1		1	1	2.89	••	1.
	(Ramgarh .	161	1	1	••	. 1			•••		11-90	••	6.
	Manbhum .	86,644	80	75	·11	86	89	65	26	91	1.50	0.30	0.
ilm and Orissa	Raniganj .	10,137	9	10	2	12	6	6	2	8	1-79	0-44	ŀ
	Palamau, Daltonganj	277	1	1	••	1	1	1	••	1	6-13	••	31
	Sambalpur, Hingir-Rampur .	797	••		••	••	1	1	••	1		•••	•
	Sonthal Parganas, Jainty . " Raniganj.	1,242 715	2	2	••	2			••		2.31	••	1.0
	Total .				••					_ <u></u>	<u> </u> 	••	•·
		119,650	103	96	16	112	124	90	38	128	1-40	0-31	0-1
utma	Southern Shan States	65	1	1		1					26.32	••	15:
			í		(-		í	·	<u> </u>		; 	<u>-</u>	i
	Betui	133	1	1		1					13-33		71
	Chanda, Ballarpur	2,650	}	1	1	2	3		2	3	0-57	1.13	0
entral Provinces	Chhindwara, Pench Valley .	8,286	5	5		5	- 11	8	3	11	1.01		0-
	Narsinghpur, Mohpani	2,036	1	1	; - "	1	6	5	1	6	0-75	••	0-
	(Ycotmal	95			!		••					••	
	TOTAL .	13,200	9	8	-' 	9	 	}		<u>†</u>			

Table No. 2-contd.

- Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act,. 1901, during the year 1922—contd.

		78.	FAT		CCIDE	NTS.	SER	IOUS A	CCIDI	INTS	.		
		mber d daily	trate	ľ	ÎUMBEH Death			PERSO	UMBEI NS SER	L OF IOUSLY	1	елтн-н ,000 р емріл	ERP
PROVINOE.	District and mineral field.	Total average number of persons employed daily.	Number of separate fatal accidents.	Below ground.	Ароте ground.	Total deaths.	Number of serious non- fatal accidents.	Below ground.	Above ground.	Total number of persons in-	Jurea. Below ground,	Above ground.	•
			1	A.—C	0AL—	con ld.							-
	Jhelum	1,390	2	3		3	!			2	3-6	ı	
Punjab	Mianwali	183	••				6	1	5	e	1		
	snanpur	113	••				••						
	Total .	1,686	2	3	.	3	8	3	Б	8	3-19	,	
	GRAND TOTAL (COAL) .	184,355	174	185	24	209	237	174	69	243	1.72	: 03	 1
	······			 B.—	MICA.	- - <u></u>	·,	<u> </u>	<u> </u> 	<u> </u> 	- <u> </u> -	<u> </u>	
ſ	Bhagalpur			••]	{						1.
	Gaya	1,518		••									.
Bihar and Orissa	Hazaribagh	7,877	3	3		3	1	1		1	0.03		0
	Monghyr	109		••	••				•••	•••			
Ĺ	Sambalpur	115	••	••			·· .	••					
	• TOTAL	9,619	3	3	···	3	1	1		1	0.53		0
	Nelloro	929			•••	 			••	••	<u> </u>		-¦
Madras	Nilgiris	32					••	••	••				
	TOTAL .	961							.:				
Rajputana	Ajmor-Morwara	525						<u>.</u>			••		.
	GRAND TOTAL (MIGA) .	11,105	3	3		3	1	1		1	0.45		0
	·		 C	!	GANES	E OR	 E.					' 	-
Bombay	Panch Mahals	1,605	2		2	2	5	· 1	4	5		5-19	1.
·	Balaghat	4,355					5	5	1	6	••		.
11	Bhandara	978]		1		ι	1	••		.
Central Provinces	Chhindwara	958	••				2]	2	2		••	•
ľ	Jubbulpore	26				••	••		••		••	••	
.u	Nagpur	3,585	2	3	••	3	1.		1	1	1-16	••	08
-	TOTAL .	9,902	2	3		3	. 9	5	5	10	0-41		0:
Madras	Vizagapatam	518											
	GRAND TOTAL (MANGA- NESE ORE).	12,025	4	3	2	б	14	8	9	15	0-34	0.03	0.4

Table No. 2-contd.

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			FAT	TAL AC	CIDE	NTS.	SERI	OUS A	CCIDE	NTS.		тн-ват	
		umber ed daily	rate		IMBER Deaths		a non-	PERSO	umber NS Seri NJUREI	OUSLY		00 PEB MPLOYI	
PROVINCE.	District and mineral field.	Total average number o pensons employed daily.	Number of separate fatal accidents.	Below ground.	Above ground.	Total deaths.	Number of serious non- fatal accidents.	Below ground.	Abovo ground.	Total number of persons in- jured.	Below ground.	Above gro ind.	Below and
		r	D. LI	MESTO	NE.	<u> </u>						[
naa • • •	Northorn Shan States	30		••	•••	· · ·			··				
	Bilaspur	316		•• 、		- 		.:					
tral Provinces	Jubbulpore-Katni	3,840		` 	<u> </u>			<u>.</u> .	1				•·
	TOTAL	4,156		••	••			<u></u>	<u>`1</u>	1	· · · ·		<u> </u>
	GRAND TOTAL (LIME - STONE).	4,186			••		• 1	••	1	1			
			E.—	SALT.									
	Jhelum	1,210 69	5 2	4 2	1	· 5 · 2	5	5	•••	5	3-43 28-98	22-22	4· 28·
ijub≺	Shahyan	83			••			•••	• • •				
	GRAND TOTAL (SALT)	1,362	7	6	1	7	5	5	•••	5	4.56	22.22	5.
		 ·	! F.—	GEMS.		ļ						! 	
ma	Katha (Rubics, etc.)	1 ,254 '	•• •		••	!	1	••	1	1	••	•••	.
			G. —	SLATE									
ar and Orissa	Monghyr	420	••		••			•-	••	••	••	••	•
ajab	Gurgaon	154			••	••		••	••		•••	•••	
	Kangra	164		••		••			••				
, 	TOTAL .	318	<u> </u>		••	••.	<u></u>		••		••		<u> </u>
	GRAND TOTAL (SLATE) .	738	ļ		••	•••		••	••	••			
ar and Orissa	. Singhbhum	••	H	-GOLI). 	1		••	• • •	-			
drag		509	 1		••	, 	2		2	2	9-43		1-1
	GRAND TOTAL (Gold)	509	 1				2		2	2	9.43		1.0
	~			RON O	RE.)							
ar and Orissa	∫ Puri	•••		••	••			••			••	••	
	Singhbhum	1,730	1	3		3					2-65		1.
	Total .	1,730	1	3	<u></u>	3		 	<u> </u>		2.65		1.7
rma	Northern Shan States .	364	•••								••	••	•
	TOTAL .	410	•••	 	<u> </u>	<u>}-</u>	2	<u></u> 	2	2	•• 		<u> </u>
jputana	. Ajmer-Merwara	30	`			1	 	 	~		•		••
	GRAND TOTAL (IRON OBE)	2,170				<u>†</u>	<u> </u>						
			1	3		3	2		2	2	2.₩	•••	1.

Table No. 2-contd.

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Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, 1901, during the year 1922—contd.

<u> </u>	. <u></u>							_			*	
-		ber of daily.	 	Nt	CCIDE:	07	-	1	ACCID		1,0	TH-BA 00 pr Mploy
PBOVINCE.	District and mineral field.	Total average number of persons employed daily.	Number of separate fatal accidents.	Below ground.	Above ground.	Total deaths.	Total deaths. Number of serious non- fatal accidents.		Above ground.			Above ground.
	· · ·	J	-WOLI	FRAM	ORE.				<u> </u>			-
Burma	Morgui	 199	 2	2		2	 2	:. 1	 1	 2	 11-98	
	Thaton	 199	2	2		2	 2	 1	 1	2	 11-98	
	GRAND TOTAL (Wol- yeam ore).	199	2	2		2	2	1	1	2	11-98	
		ĸ	.—MA	gnesi	TE.						 	
Madras	Salem	1,077		••	•••	••		••				••
			–CHR(MITE	ORE.	·[
Baluchistan	Zhob	284	••			••	2	1	1	2		
Bihar and Orissa	Singhbhum	195		•• •								
	GRAND TOTAL (CHROMITE ORE).	479			••	•••	2	1	1	2		
Bihar and Orissa	Singhbhum	M. - 2,744	-COPF				2		2	2		
					••• 						••	••
Contral Provinces	Balaghat	21	••		! 	••	••			. ••	••	••
	GRAND TOTAL (COPPER OBE).	2,765					2		2	2		
Contral Provinces .	Jubbulporo	120	N 	.—BA` 	UXITE	• ••		••	••		•••	
	· ·	- <u></u> !-	 0				•					<u> </u>
Bihar and Orissa{	Manbhum Palamau	10 57		 	••	••		 	 	 	 	
	TOTAL .	67							'			
Central Provinces	Jubbulpore	619		••								••
Delhi	Dolhi	66	•••									
	GRAND TOTAL (CLAY)	752			í]	•					

Table No. 2-concld.

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, 1901, during the year 1922—concid.

	1		FA	TAL A	CCIDE	NTS.	SER	IOUS	ACCID	ENTS.	Dr	TH-BA7	
		umber ed daily.	arato	N	UMBEB DEATE	. OF 5.	-uou s	PERSC	UMBER DNS SER	IOUSLY	1,0	00 PEE	SONS
Province.	District and mineral field.	Total average number of persons employed daily.	Number of separate fatal accidents.	Bolow ground.	Abovo ground.	Total deaths.	Number of serious non- fatal accidents.	Below ground.	Above ground.	Total number of persons in- jured.	Below gronnd.	Above ground.	Below 'and above ground.
····			P.—L	EAD (RE.								
Barma	Northern Shan States	1,820	8	8		8	23	20	4	24	6.25	••	4.4
Central Provinces .	Drug	34		••									
	GRAND TOTAL (LEAD ORE).	1,854	8	8		- 8	23	20	4	24	6.16	•••	4.3)
`		,	QT	IN OR	Е.	,							
Burma	Mergui	614 2,306	4	3	· 1	. 4	••	••	••	••	5-76	10-75	6-51
	Tavoy Thaton	2,306	1	1 	••	1	•••	••	••	••	0-56 	•••	0-43
	GRAND TOTAL (TIN ORE)	2,058	5	4	1	5		 	<u> </u>		1.72	1-59	1.6
			ļ			<u> </u>	 		<u>.</u>			ļ	
Central Provinces	Jubbulpore	1 41	R.—§T ··· ∣	EATI] 	"E. 				••	••			
Madran	Nelloro	25				 							
	GRAND TOTAL (STRATITE)	. 66					 				••		<u> </u>
<u> </u>]				 					
Bihar and Orissa	Singhbhum	89	8.—Ai		s. 				••		••		••
	•	5	r.—gr	APHI			`						
central Provinces	Betul	5	••		••		••	•••	••	••	••	••	• •
b -1			U. —(OCHRI	3. 3.	·							
Bihar and Orissa	Puri	34		••					••		••	••	••
Central Provinces	Jubbulpore	215									•••		•••
	GRAND TOTAL (OCHRE)	249							••		•••		
ladras	Kurnool	194	▼.—B/	ARYTE 									••
	GRAND TOTAL (ALL MINES).	228,511	205	215	28	243	292	208	92	300	1.57	0.31	• 1·06

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Table No. 3.

Statement of fatal accidents in mines regulated by the Indian Mines Act, 1901, during the year
1922, classified according to the age and sex of the workers.

				coi-			NUM	BER O	F DEA	THS.	<u> </u>		, E
-				atala	Be	LOW G	ROUND,		A	BOVE (ROUND		AND ADOVE
MINERAL.	Pro	YINGB AND M FIELD.	INERAL	Number of separato fatal acci- dents.	Adult males.	Adult females.	Children (under 12).	Total-	Adult males.	Adult femalcs.	Children (under 12).	Total	TOTAL BELOW AND ground.
(Assam	Lakhim		' 7	7		•••	7			••		7
	1 1 1 1 1 1 1 1 1	Naga H	lills .	1	1	••		1		••	••		1
-		T	OTAL .	8	8	••	••	8	••	••		••	8
	Baluchi	Que	tt s , Pishin	2	2			2					2
	- Darucan	,∫Sipi	, Khost	4	16	••	••	16	••	••		•-	16
		2	TOTAL .	· 6	18			18					18
~	Bengal,	Burdwan, R	aniganj .	45	43	8		51	7			7	58
		ſ	Bokaro	4	2			2	2	•••		2	4
		Hazaribagh	Giridih	3	••	2		2	1			1	3
			Jharia	3	1	2	•••	3		••			3
,	Bihar	1	(Ramgarh		1	••		1	••	••			1
	and - Orissa.	Manbhum	{Jharia Raniganj	80	65	9	1	75 10	10 2	••	1	11 2	80 12
Coal		Palamau, I		9 1	10 1	••	••	1		••	••		12
		Sambalpur,				••					••	••	
		Rampur.		· 2	2	••		2	••		••	••	2
	i.	Sonthal Parganas	Raniganj.			••		•••	••	••	••	••	••
		ຸ 1	Cotal .	103	82	13	1	96	15		1	16	112
	Burma	, Southern Sh	an States .	1	1			1				••	1
•			(Betul .	1	1			1					1
			Chanda .	2	1			1	1			1	2
	Centra	l Provinces	Chhindwarz	5	4	1		5				••	5
<u>،</u>			Narsingh- pur.	1	1		••	1		•• ,	<u> </u>		
			Total .	9	7	1	•••	8	1			1	9
	Punjał	b, Jhelum	• • •	2	3			3				••	3
		Total ((Coal)	174	162	22	1	185	23		1	24	209

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Table No. 3-concld.

·		ta l			NUM	IBER C)F DE	ATHS.			AND ABOVE
			B	elow G	BOUND	•	Ав	OVE GR	OUND.		- E
Mineral.	PROVINCE AND MINERAL VIELD	Number of separate fatal accidents.	Adult males.	Adult fomales.	Children (under 13).	TOTAL.	Adult males.	Adult females.	Children (under 12).	Torat.	TOTAL DELOW AN GBOUND.
{	Bibar and Orissa, Hazaribagh .	3	- 2	1	••	3	••		•••		3
dica	Madras, Nolloro					`	••		••		
	Total (Mioa) .	3	2	1		3	••	••	••	<i>;</i> ·	3
LANGANESE ORE	Bombay, Panch Mahals	2			••	•	2		••	2	2
	Contral Provinces, Nagpur .	2	3		••	3	••	•••		••	3
	Total (Manganese Ore) .	4	3			3	.5	••	••	2	5
ALT	Punjab . {Jholum Mianwali	5 2	3 2	1 	••	4 2	1 	••	 	1	5
	Total (Salt) .	7	5	1		6	1	••		1	7
	Madras, Anantapur	1	1			1		••			1
RON ORB.,	Bihar and Orissa, Singhbhum .	1	3		••	3					3
VOLFRAM ORE	Burma . {Morgui Tavoy	 2	 2			 2	., 	••	••	••	 _ 2
	Total (Wolfban Ore)	2	2		••	2					2
l'in Oaz	Burma . {Mergui Tavoy	4	3			3	1 	••		1	4
	TOTAL (TIN ORE) .	5	4			4	1			1	5
JRAD ORB	Burma, Northern Shan States .	8	8			8	••		·	••	- 8
GRANI) TOTAL (ALL MINERALS)	205	190	24	1	215	27		1	28	243

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Statement of fatal accidents in mines regulated by the Indian Mines Act, 1901, during the year 1922, classified according to the age and sex of the workers—concld.

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Table No. 4.

Statement of fatal accidents in mines regulated by the Indian Mines Act, 1901, during the year	lines Act, 1901, during the year
1922, classified according to cause of accident.	cident.

	e fatal					Nu	MBER O	F PERSO)NS KII.	LED.				Death-i P EM	RATE PI ERSONS PLOYED	
Mineral worked.	Number of separate fatal accidents.	Explosions of firo- damp.	Falls of roof.	Falls of side.	In shafts.	Suffocation by gases.	By explosives.	Irruptions of water.	Haulage.	Miscellaneous below ground-	Surface.	Electricity.	Total desths.	Below ground.	Abore ground.	Below and above ground.
Coal	174	21	53	52	32	••	7	1	_ 14	7	10	3	209	1.72	, 0-31	 ۱۰۱3
Clay	•••	•••		••				 -	•							
Gold	1				1					••			· 1	0-43		1-90
Iron Orv	1	.,		3			• ••				••		3	2.17		1-38
Lead Ore .	8		••		2	••		••	3	3			8	6.16		4-31
Manganese Ore .	. 4			3							2		5	0.34	0-63	°0·42
Mica	3	••	1	2						••		••	3	0-45		0-27
Salt	7	••	. 1	1		••	2		3			••	7	4-56	22-22	5-14
r Tín Oro	• 5	••	••	4					••		1	••	5	1.72	1.50	1-60
Wolfram Oro [.] .	2		2		••	••		••					2	11-98		10.02
Total 1922 .	205	21	57	65	35		Ð	1	20	10	• 22	3	243	1.57	0.31	1.06
Total preceding Yeab.	232	15	81	91	22		20	••	32	12	20	•	203	1.72	0-26	1.17
Diffenence .	27	+6	24	26	+ 13		_11	+1	-12	2	+2	+3	50	0-15	+ 0 ·05	—0·11

APPENDIX III.

PROSECUTIONS UNDER THE INDIAN MINES ACT, 1901.

Statement of prosecutions under the Indian Mines Act, 1901, during the year 1922.

Province.	District.	Number of prosecu- tions.	Number of persons prosecuted	Number convicted.	Numbers of rules and sections of the Act contravened.	Remarks.
Arsam ·	Lakhimpur .	1	1	**=	Section 21, Special Rule 71	Accused was
	Bankura .	1	1	•••	Section 20, Rules 1, 3 and 7 of Notifica- tion No. 864-68—20, dated the 10th March 1904.	acquitted. Accused was acquitted.
	Burdwan .	1	1	I	Section 13 (1) and Section 20, Rule 47 of Notification No. 2968-82, dated the 21st April 1906, as amended by Notification No. 894-82, dated the 26th January 1907, and Notification No. 9709-131, dated the 23rd Octo- ber 1908.	
	Do	I	2	1	Section 15(2) and Section 20, Rule 7 of Notification No. 864-68-20, dated the 10th March 1904.	One accused was acquit- ted.
	Do	1	2.	1	Section 20, Rules 1, 3 and 9 of Notifica- tion No. 864-68-20, dated the 10th March 1904.	One accused was dis- charged.
Bengal	Do	1	2	2	Section 20, Rules 2, 19 and 20 of Notifi- cation No. 864-68—20, dated the 10th March 1904.	
	Do	1	2	2	Section 20, Rules 3 and 7 of Notification No. 864-68-20, dated the 10th March 1904.	
	Do	.1	2	1	Section 20, Rules 3, 7 and 19 of Notifi- cation No. 864-68-20, dated the 10th March 1904.	Case against one accused was dis- missed.
	Do	1	1		Section 20, Rule 19 of Notification No. 864-68—20, dated the 10th March 1904, and Rule 3 of Bongal Govern- ment Notification No. 3970-Com., dated the 28th August 1918.	Accused was acquilled.
	Do	1	1		Section 21, Special Rule 4	Wilhdrawn.
1	Do	1	2	2	" ", Rules 38, 40 and 41	
	Do	1	1	•••	", ", Rules 39 and 40 .	Case dis-
	Do	1	1	•••	" ", Rules 64 to 67 .	missed. Withdrawn.
	. Do	1	1	1	" " Rule 78	
	Hazaribagh .	7	2	•••	Section 20, Rule 1 of Notification No. 11793—103, dated the 30th Decem- ber 1908, as amended by Notifications No. 5072—113, dated the 1st July 1916, and No. M498, dated the 29th June 1922.	Withdrawn.
Billar and Orissa 🗸	Do	6	6	6	Do. do. do.	
Amar and Orissa 2	Manbhum .	1	2	2	Section 13 (1) .	
•	Do	1	1	1	Section 13 (1) and Section 20, Rule 46 of Notification No. 864-68-20, dated the 10th March 1904.	
	- Do	1	1	I	Section 13 (1) and Section 20, Rule 47 of Notification No. 864.68—20, dated the 10th March 1904.	

PROSECUTIONS UNDER THE INDIAN MINES ACT, 1901-contd.

Statement of prosecutions under the Indian Mines Act, 1901, during the year 1922-contd.

Province.	District.	Number of prosecu- tions.	Number of persons prosecuted.	Number convicted.	Numbers of rules and sections of the Act contravened.	Remarks.
- (Manbhum .	1	1		Section 15 (1)	Accused was
	Do	1	1	1	Do	acquitted.
	Do	1	1		Section 16	Case dis.
	Do	1	3.	2	Section 20, Rule 3 of Notification No. 864-68-20, dated the 10th March 1904.	missed. One accused was acquit- ted.
	Do	1	1	1	Section 20, Rule 4 of do. do.	
	Do	1	1	1	Section 20, Rules 3 and 7 of do. do.]	
	Do	1	2	2	Section 20, Rules 3 and 7 of Notifica- tion No. 864-68—20, dated the 10th March 1904, and Rule 3 of Bihar and Orissa Government Notification No. 11761-M., dated the 23rd August 1918.	
	Do	1	2	1	Section 20, Rules 3, 4 and 17 of Notifica- tion No. 864-68—20, dated the 10th March 1904.	Case against one accused withdrawn.
	Do	1	2	2	Section 20, Rules 3, 7 and 19 of do. do.	
	Do	1	2	2	Section 20, Rule 7 of do. do.	
Bihar and Orissa — concid.	Do	1	2	2	Section 20, Rules 7 and 13 of do. do. and Rule 3 of Bihar and Orissa Gov- erament Notification No. 11761-M., dated the 23rd August 1918.	
	Do	1	1	1	Section 20, Rules 7 and 22 of Notifica- tion No. 864-68—20, dated the 10th March 1904, and Rule 2 of Bihar and Orissa Government Notification No. 11761-M., dated the 23rd August 1918.	
	Do	1	1	1	Section 20, Rule 19 of Notification No. 864-68-20, dated the 10th March 1904.	
	Do	1	1	1	Section 20, Rule 1 of Notification No. 11793-103, dated the 30th Decem- her 1908, as amended by Notifica- tions No. 5072-113, dated the 1st July 1916, and No. M498, dated the 29th June 1922.	
	Do	1	1	1	Section 21, Special Rule 4	
	Do	1	1	1	۳ به ق وو وو	
	Do.	1	1		., ., ., ., 5	Accused absconded.
, .	Monghyr .	1	2	1	Section 20, Rule 1 of Notification No. 11793—103, dated the 30th Decem her 1908, as amended by Notifica- tions No. 5072—113, dated the 1st July 1916, and No. M498, dated the 29th June 1922.	absconaea. One accused acquitted.
	Do	1	2	1	Do. do. do.	Do.
	Do	1	2	1	Do. do. do.	Do.
	Do	1	3	•••	Do. do. do.	Accused not traced.

APPENDIX III-concld.

PROSECUTIONS UNDER THE INDIAN MINES ACT, 1901-concld.

Statement of prosecutions under the Indian Mines Act, 1901, during the year 1922-concld.

Province.	District.	Number of prosecu- tions.	Number of persons prosecuted.	Number convicted.	Numbers of rules and sections of the Act contravened.	ARES.
	Chhindwara .	1	1	1	Section 20, Rule 1 of Notification No. 11793-103, dated the 30th Decem- ber 1908, as amended by Notifica- tions No. 5072-113, dated the 1st July 1916, and No. M -498, dated the 29th June 1922.	
Central Provinces 4	Do	1	2	2	Do. do. do.	•
	Do	1	1	1	Section 20, Rule 8 of do. do.	-
	Do	1 1	1	l	Section 21, Special Rule 9	
	Jubbulpore .	1	1	1	Section 20, Rule 1 of Notification No. 11793-103, dated the 30th Decem- ber 1908, as amended by Notifica- tions No. 5072-113, dated the 1st July 1916, and No. M498, dated the 29th June 1922	
Delhi ; {	Delhi .	1	2	1		iccused acquit-
Punjab	Do. Shahpur .	1	1 2			ed died.
, ,		•				
				•		

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APPENDIX IV.

MISCELLANEOUS.

Statement No. 1.

List of Inspection Circles.

No. 1 Circlo.	No.,2 Circle.				
 All mines in Baluchistan. All mines in Bihar and Orissa except mines in the district of the Sonthal Parganas and such mines in the district of Manbhum as lie west of a line drawn from mile 175 on the Bengal Nagpur Railway to mile 169 on the Grand Trunk Road and continued in a straight line across the district. All mines in the North-West Frontier Province. All mines in the Punjab. 	 All mines in Assam. All mines in Bengal. Such mines in Bihar and Orissa as lie in the district of the Sonthal Parganas and in the district of Manbhum east of a line drawn from mile 175 on the Bengal Nagpur Railway to mile 169 on the Grand Trunk Road and continued in a straight line across the district. All mines in Bombay. All mines in Burma, 				
5. All mines in Rajputana.	6. All mines in the Central Provinces. 7. All mines in Madras.				

Statement No. 2.

Names of persons to whom first and second class certificates to manage a coal mine were granted during the year 1922.

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

First	CLASS.
FIRST	ULASS.

NAME.	No. of Indian certificate.	dian Date of Indian certificate.			Date of English certificate.	
Manley, Frederick William	280	18th April 1922	• •	746	22nd January 1920.	
Minto, Oswald	281	Ditto		75 <u>3</u>	Ditto.	
Morgan, Arthur Mansel	282	Ditto		861	10th February 1921.	
Heslington, Thomas Parker	,283	4th May 1922	•	733	22nd January 1920.	
Jones, Clifford	284	Ditto		973	11th May 1921.	
Whyte, Maurice Melville	. 285	Ditto		934	12th February 1921.	
Fairfield, Wilfrid .	286	12th December 1	1922 -	796	11th August 1920.	
Flanningan, Peter .	. 287	Ditto		893	12th February 1921.	
Hale, Bertram John .	288	Ditto [*]		947	Ditto.	
Healy, John	. 289	Ditto		896	Ditto.	
Mullin, George	290	Ditto		421	27th July 1917.	
Radford, Simeon .	291	Ditto		4171	28th June 1912.	
Roy, Alexander Rose	292	Ditto		613	27th January 1919.	

MISCELLANEOUS-contd.

Statement No. 2-contd.

Names of persons to whom first and second class certificates to manage a coal mine were granted during the year 1922—contd.

(b) Certificates of competency.

FIRST CLASS.

Namo.	No. of certificate.	Date of certificate.	Венавкз.		
Kolys, Narayan Chandra	• •	138	4th May 1922.		
awal, Girijashankar Shambhuram 🛛 .	•••	139	Ditto, '		
Ganguly, Bijoy Kumar	•••	140	Ditto.		
Allan, Herbert Durham		141	Ditto.	· ·	
Justterjoe, Hrishi Kesh		142	Ditto.		
labborjam, James	• •	· 143	· Ditto.		
Wilson, Thomas		144	Ditto.		
Chatterjee, Kshotra Mohon		145	Ditto.~		
Ghatak, Tara Sankar	· . [146	Ditto,		
Bauerjoe, Jatindra Nath		147	Ditto.		
l'andya, Pranjivan Hargovind		148	Ditto.		
(iliani, Md. Oeman		149	Ditto.		
Chekravarty, Profulla Ranjan		150	Ditto.		
Karmakar, Kali Pada		151	Ditto.		
Jackson, Clarence Oliver		152	Ditto.		
Mukerjee, Bhupendra Kumar		153	Ditto.		
Meaozes, Vincent do		154	Ditto.		

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

SECOND CLASS.

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Nam <u>k</u> .	No. of Indian certificate.	Dato of Indian certificate.	No. of English. certificate.	Date of English certificate.		
littings, Harry	. 25	12th December 1922.	7220	4th January 1910.		
				· -		

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MISCELLANEOUS-contd.

Statement No. 2-concld.

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Names of persons to whom first and second class certificates to manage a coal mine were gran during the year 1922—concld.

(b) Certificates of competency.

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SECOND CLASS.

		Next		
NAME.		No.of certificate.	Date of certificate.	- REMARKS.
Walker, Clarence James	•	267	4th May 1922.	
Laker, Stanley Alfred George	-]	268	Ditto.	
Biswas, Balaram		269	Ditto.	
Chatterji, Kali Pada	•	270	Ditto.	
Bose, Amulya Krishna	•	271	Ditto.	
Chattorji, Anileswar	•	272	Ditto.	
Shome, Makhan Lall . · . ·	-	273	Ditto.	
Joseph, Marcus Reginald Coloman		274	Ditto.	
Basu, Rama Nath		275	, Ditto.	
Mitra, Jnanendra Nath		276	Ditto.	
Roy Chowdhury, Himanau Kumar	· †	277	Ditto.	
Paul, Upendra Nath		278	Ditto.	
Samanta, Debi Kinkar	•	279	Ditto.	
De, Probodh Chandra		280	Ditto.	
Mukherji, Sakti Pada	-	. 281	Ditto.	
Mukherjee, Tarapada		. 282	Ditto.	
Roy, Rajeswar	-	283	Ditto.	
Mukhorjee, Kali Dass	- 1	284	Ditto.	
Bhattacharjee, Kshitish Chandra	-]	285	Ditto.	
Chattorjee, Khirode Chandra · · ·	•	286	Ditto.	
Bhattacharjî, Pusker Nath	•	287	Ditto.	
Chakravarty, Hari Pada	•	288	Ditto.	
Mukherji, Krishna Kinkar	•	289	Ditto.	
Banerji, Baidya Nath	·	290	Ditto.	
Sarkar, Pramatha Nath	•	201	Ditto.	
Hazra, Probhakar	•	292	Ditto.	
Das, Paresh Chandra	·	293	Ditto.	
Sen Gupta, Nripendra Chandra · · ·	•	204	Ditto.	
Sen Gupta, Mono Mohan	•	295	Ditto.	
Chowdhury, Debendra Nath	•	296	Ditto.	
Goswami, Jibananda	•	297	Ditto.	
Sinha, Modhusudan	•	298	Ditto.	
Sarkar, Radhika Ranjan 🛛 . 🔹 .	•	209	Ditto.	
Durgaprasad, Gotipati Ramaswamy	•	300	Ditto.	
Kundu, Shibpada	-	301	Ditto.	
Mondal, Phanindra Nath		302	Ditto.	
De, Abinash Chandra	•	303	Ditto.	
Mitchell, Christopher Robert Stanley	•	304	Ditto.	

MISCELLANEOUS—contd.

Statement No. 3.

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

Name of Institution and Degree or Diploma.	Date.
University of Birmingham in respect of its Degree of B. Sc. in Mining and Diploma in Mining.	11th June, 1904.
University College of Bristol in respect of its Senior Diploma in Mining.	16th September, 1904.
University of Cambridge in respect of its Diploma in Mining Engineering.	6th June, 1905.
University of Durham in respect of its Degree of B. Sc. in Mining Durham College of Science in respect of its Diploma in Mining University of Glasgow in respect of its Degree and Diploma in	21st December, 1903. 29th June, 1904. 28th September, 1904.
Mining. 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 . University of Oxford in respect of its Diploma B. for Colliery Engineers (in Scientific Engineering and Mining subjects).	24th March, 1904. 11th February, 1905.
University College of Sheffield in respect of its Diploma in Mining University College of South Wales and Monmouthshire in respect of its Diploma in Mining.	15th July, 1904. 19th April, 1904.
Wigan Mining and Technical College in respect of its Diploma in Mining.	26th August, 1904.
Bengal Engineering College, Sibpur, in respect of its Diploma in Mining.	22nd February, 1907.
Merchant Venturers' Technical College, Bristol, in respect of its	5th October, 1905.
Diploma in Mining Engineering. Victoria University of Manchester in respect of its Degree and Certi-	14th February, 1906.
ficate of Mining. University College of Nottingham in respect of its Diploma in Min-	28th March, 1906.
ing Engineering. University of Sheffield in respect of its Degree of Bachelor of	30th June, 1906.
Engineering (Mining). Heriot-Watt College in respect of its certificate in Mining	16th January, 1908.
Engineering. Calcutta University in respect of its Degree of Bachelor of Engineer-	24th September, 1910.
ing in the Branch of Mining Engineering. Harvard University, Cambridge, Massachusetts, in respect of its	22nd February, 1913.
Diploma in Mining Engineering. Columbia University, New York, in respect of its Degree of	13th March, 1915.
Engineer of Mines. California University, United States of America, in respect of its Degree of Mining Engineer	19th February, 1916.
Degree of Mining Engineer. Pittsburg University, United States of America, in respect of its Degree of Engineer of Miner	19th February, 1916.
Degree of Engineer of Mines. Leland Standford Junior University, California, in respect of its Degree of Bachelor of Arts, in Geology and Mining.	10th August, 1918.

APPENDIX IV—contd.

MISCELLANEOUS—contd.

Statement No. 4.

BENGAL ENGINEERING COLLEGE.

THE MINING CLASSES.

Admissions to the Mining Diploma Course at the Bengal Engineering College.

The Diploma Course covers two Sessions, commencing yearly in April, and lasting till the examinations in the following March. (There is a vacation of about three months in August, September and October.) Six weeks of each Session is spent during November and December at a camp of mine surveying in the colliery districts.

Three classes of students are admitted-

Occasional—who are admitted to receive training in connection with private business. Regular—who need have no experience of mining.

Special-who have had about two years' previous experience of coal-mining (underground).

A total of 4 seats yearly are reserved for candidates domiciled in Bihar and Orissa and 1 seat each for a candidate domiciled in Assam and Mysore.

Admissions are made as follows :---

Regular and occasional students.—Age may not exceed 20 on January 1st of the year of admission.

A.—Through a special preparatory course of one year's duration at the Bengal Engineering College. Admissions at the beginning of March.

B.—Through the Sub-Overseer classes (a two years' course at Dacca, Burdwan, Rajshahi and Pabna in Bengal; Bankipur in Bihar and Orissa).

Special students-

C.—Direct from the mines to the Mining Diploma classes without passing through either A or B. Admissions at the beginning of April. Applications must be made by 1st March accompanied by certificates from the colliery managers under whom candidates have served, showing the period and nature of employment underground.

Admission qualifications to A, B and C-

The passing of the B. Final or the Matriculation Examination in the 1st Division with additional mathematics, the Junior Cambridge Examination held at the end of the supplementary course for elementary European Schools, or equivalent.

The number that can be admitted is limited. The selection of candidates rests with the Principal who, all other things being equal, will prefer the younger of two candidates. So many superior candidates apply for admission that selection is now practically confined to those who have completed the I. Sc. S. or Senior Cambridge Course of Study.

Scholarships awarded by" the Bengal Government-

For Regular students-

Scholarships of the following number and value are available for regular students admitted under A; these are awarded on the result of the examination held at the end of the Preparatory Course A:---

Two of Rs. 12 monthly.

Three of Rs. 6 monthly.

Stipends awarded by the Bihar and Orissa Government-

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Two Boarding stipends of Rs. 15 monthly tenable for three years by poor and capable students of that Province. These are available in either the Mining or Mechanical and Electrical Engineering classes.

For Special students-Awarded by Bengal Government.

Awarded on the result of the examination held at the end of the lectures given in the colliery districts by the Instructor in Mining.

One of Rs. 50 for Europeans.

One or two of Rs. 25 for Indians.

These amounts should be sufficient to maintain a special student resident at the College. For further particulars apply for the Mining Classes Circular.

T. H. RICHARDSON,

Principal, Bengal Engineering College, Botanic Garden P. Q.

MISCELLANEOUS—contd.

Statement No. 5.

MINING INSTRUCTION IN BENGAL.

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

The full course comprises two parts, the lectures in which are delivered in alternate years as follows :---

(1) The principles of Coal Mining, 1922-23.

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(2) The principles of Mechanical Engineering of Coal Mines, 1923-24.

A fee of Rs. 5 (five rupees) payable to the Mining Instructor on the first registration of his name is charged to each student for each year's series of lectures. This fee is non-returnable.

Programme for Session, 1922-23.

Lectures on the principles of Coal Mining will be delivered in English, as follows :--

RANIGANJ COAL-FIELD.

Dishe rgarh	•			Lecture-room near Club Wednesdays	5-30 р.м.
Raniganj	٠	•	•	Bengal Coal Co. Ltd., zamindary office	• 5-0 "
Jamu ria	•	•	•	Chief Mining Engineer's office, Sibpur Colliery	5-30 ,,

The course of instruction, consisting of not less than 30 lectures, will commence in the first week in September and end in the following April. The examination will be held early in May. Candidates who pass the examination will receive a certificate recording their success. No candidate will, however, be permitted to sit for the examination unless he has attended 50 per cent. of the lectures and received 40 per cent. of the marks allotted for home work.

Scholarships are awarded by the Mining Education Advisory Board on the results of the examination; these will be tenable for two years at the Sibpur College, and are granted to enable the holders to attend the full course for the Diploma in the Principles of Mining. One scholarship of Rs. 50 is reserved for Europeans and two of Rs. 25 are awarded to Indians. Candidates are not eligible for scholarships unless they have two full years of practical training in the collieries. Preference will be given to those who have satisfied the examiners in both of the lecture courses in the coal-fields.

The following Local Committees have been appointed :---

RANIGANJ COAL-FIELD.

Dishergarh Centre. Mr. J. H. Lang, Chairman. ,, J. B. Wardlaw (Dishergarh). ,, Geo. Miller (Nitaramp ur). ,, W. Weir (Kulti). Babu U. N. Mandal (Dishergarh). ,, K. B. Chandra (Mugma).

" S. N. Ghosh (Barakar).

Jamuria Centre. Ranigang Centre. Mr. J. H. Lang, Chairman. Mr. J. H. Lang, Chairman. ,, P. S. Keelan (Charanpur). " P. S. Keelan (Charanpur). " G. S. Castles (Charanpur). A. T. Creet (Kalipahari). 11 " D. N. Archibald (Sripur). " W. S. Elphinstone (Asansol). Babu S. N. Banerjee (Faridpur Col-W. J. Rees (Raniganj). Babu Promotho Nath Hazra (Toposi). "Purns Chandra Bagchi (Kaliliery, Charanpur P.O.) pahari). " S. Chaudhuri (Jamehari, Raniganj).

> T. H. RICHARDSON, Secretary, Mining Education Advisory Board, B. E. College, Botanic Garden P. O., Howrah.

MISCELLANEOUS—contd.

Statement No. 5—contd.

MINING INSTRUCTION IN THE COAL-FIELDS OF BENGAL.

SYLLABUS OF THE COURSE OF INSTRUCTION.

The lectures in the following courses are delivered in alternate years :-

THE PRINCIPLES OF COAL MINING.

1. Geology .-- General structure of the earth's crust ; igneous and aqueous rocks ; definitions of outcrop, dip, strike, fault, roll, wash-out and dyke, etc. ; recording geological observations; reading a geological map; description of the Indian coal-bearing rocks; composition and properties of coal. Commercial values of coal.

2. Exploration.—Prospecting, trial shafts and trenching; advantages of boring; methods of boring; driving through faults, uses of boreholes in mines, etc.

3. Breaking ground.-Common tools; storage and use of explosives; electric fuses; machine drills; coal-cutting machines.

4. Sinking.-Site of colliery ; position of inclines and shafts, their excavation and shape, apparatus used in sinking ; lining shafts ; arrangements at top of sinking shaft ; brief mention of special methods of sinking.

5. Methods of working .- Quarrying, advantages of bench work, disposal of soil; shaft pillars ; pillar and gallery method, working thick seams in stages, extraction of pillars, panels ; brief description of long wall and chambering methods.

6. Supporting .- Props and lids, bars, chocks or cogs, square sets, special timbering in loose ground ; arching ; steel girders ; packing ; dry and hydraulic stowing.

7. Mine gases.—Their experimental preparation by chemicals, and illustration of their physical and physiological properties; their chemical composition; methods of detecting explosions ; spontaneous combustion of coal ; dangers of coal-dust.

8. Ventilation.-Ascensional currents, currents induced by the heat of steam or furnace; mine fans; friction of air in mines; theory of splitting the air; calculations of ventilating pressure, etc. ; coursing the air ; measurement of quantity of air ; use of anemometer; watergauge, thermometer and barometer, reversing the air current.

9. Safety lamps .- Principle of the safety lamps ; Sir Humphrey Davys' experimental types of safety lamps; firedamp detectors.

THE PRINCIPLES OF MECHANICAL ENGINEERING OF COAL MINES.

1. Applied Mechanics.-Mensuration; definitions of motion, force, friction, work and energy; the simple machines; mechanical and electrical units; hydrostatics; the siphon; pressure of gases; Boyle's law.

2. Steam, Electricity and Compressed air .- Theory of steam boilers and their fittings ; the steam engine; the dynamo; the electric motor; the air compressor. 3. Winding.-Types of winding engines and description of parts; calculation of the dimen-

sions of winding engines; strength of ropes and chains; detaching hooks; over-winding prevention devices ; rope cappings ; care and examination of ropes, buckets, cages , guide ropes.

4. Pumping.—The lift pump; the force pump; sinking pumps; pumps with positive valve motion; the pulsometer; turbine pumps; calculations of the dimensions of pumps; methods of supporting pumps and pipes ; strength of pipes, pipe joints ; dams to hold back water.

5. Hauling.—Tramways; tubs; hand tramming; horse haulage; self-acting inclines; locomotives ; single rope haulage ; main and tail rope haulage ; endless rope or chain haulage ; calculations of the dimensions of hauling engines, ropes, etc..; capping of haulage ropes ; couplings, haulage clips, etc.; signalling.

6. Surface arrangements.-Headframes and pulleys ; receiving frames ; keps ; arrangements of roads on pit bank ; tipplers ; simple screening and sizing ; railway sidings : aerial ropeways.

7. Simple treatment of coking and bye-product ovens.

Adopted by the Mining Education Advisory Board at their meeting of 27th January 1917. Copies of this Circular may be obtained from the Secretary or from the Instructor.

T. H. RICHARDSON,

BENGAL ENGINEERING COLLEGE, BOTANIC GARDEN P. O. The 16th October 1922.

Secretary.

MISCELLANEOUS-contd.

Statement No. 6.

MINING INSTRUCTION IN BIHAR AND ORISSA.

(The Mining Education Advisory Board desire that Colliery Managers will kindly publish this information in their collicries. An appeal is also made to them to support the lectures by sceing that members of their colliery staff, who are suitable, take advantage of the lectures and attend them regularly.)

The full course covers a period of three years and the following is an abstract of the syllabus.

First year.-(1) Mathematics, (2) Elementary Science.

Second year.-(1) Elementary Mechanics, (2) Mechanical Drawing.

Third year {(1) Elementary Mining Surveying. (2) The Principles of Coal Mining. (3) Mechanical and Electrical Engineering of Collieries.

Copies of the detailed syllabus may be obtained from the Secretary, the Chairman of the Local Committees and Lecturer.

A fee of Rs. 5 (five rupees) is payable by each student to the Mining Lecturer on the first registration of his name for the first or the second year's course of lectures. The fee for the third year's course is Rs. 10. These fees are not returnable.

Programme for Session, 1922-23.

During Session 1922-23 instruction in all the years of the course will be provided. There will be two lectures per week in the first and the second years and three lectures per week in the third year.

Lecturer.

Mr. Griffith Jones, B.Sc., first class certificated Colliery Manager and Surveyor.

Assistant Lecturer.

N. N. Sen, L.M.E.

All students should enrol a follows :----

Jharia Lecture Hall	•	•		-	•	-	•	Monday, September 4, at 5-30 P.M.
Sijua Lecture Hall	٠	٠	•	•	•	•	•	Tuesday, September 5, at 5-30 P.M.

The class arrangements for all the courses will be arranged by the lecturer on the enrolling nights. Students should enrol at the first meeting so that the class work may be commenced without delay.

The course of instruction will commence in the first week in September and end in the following May. The examination will be held in May. Candidates who pass the final examina-tion will receive a certificate recording their success. No certificate shall be given to candidates unless they attend the 2nd and 3rd years. No candidate will, however, be permitted to sit for the examination unless he has attended 50 per cent. of the lectures and received 40 per cent. of the marks allotted for home work.

The following Local Committees have been appointed :---

JHARIA COALFIELD.

Jharia Centro.	Sijus Centre.					
 Mr. D. Penman, Chairman. , G. Jones, Lecturer. , R.G. M. Bathgate (Jamadoba). , J. Murray (Kustore). , J. B. Argyle (Lodna). , R. Barrowman (Standard Coal Company, Jharia). , Narendra Nath Sarkar (South Kujama, Jharia). , S. M. Chatterjee (Kalithan Suratand, Jharia). 	Mr. D. Penman, Chairman. ,, G. Jones, Lecturer. ,, A. A. Agabeg (Sijua). ,, R. Heron (Bhalgora, Jharia P.O.). ,, H. M. Bull (Bansjora). ,, G. C. Leach (Sijua P. O.) Babu Trikumdas Doyal (Bullihari Colliery, Kusunda P.O.) Mr. Meghji Bhimji Relia (Angrapattra).					

MISCELLANEOUS—contd.

Statement No. 6-contd.

MINING INSTRUCTION IN THE COALFIELDS OF BIHAR AND ORISSA.

SYLLABUS OF THE COURSE OF INSTRUCTION.

First Year Course.

1. Mathematics.—Arithmetic and Algebra up to simple equations. Mensuration and use of squared paper. Trigonometry—up to solution of Triangles.

2. Elementary Science—Physics.—Volume of displacement, Balances, Density, Specific gravity bottle, Fluid pressure, Hydrometer, Syphon, Barometer, Ideas of forces, Equilibrium of three forces, Centres of gravity, Fraction, Thermometer, Expansion due to heat, Latent heat of steam, Properties of solids, Liquids and gases, Boyle's Law, Hydrostatics, Elements of electricity amd Magnetism, Electrical units.

Chemistry.—Atomic Theory, Elements, Compounds, mixtures, acids, bases, composition of the atmosphere and of gases met with in Mines.

Second Year Course.

1. Mechanics.—Units of Mass, Length and time, Levers, Pulleys, Wedges, Gearing, Simple Machines, Equilibrium, Units of work and energy, Horse Power, Stress and Strain, Design and headgears, Strength of ropes, chains, boilers, etc. The elementary principles of hydraulics.

2. Mechanical Drawing.—Conventional signs, Construction of Scales, Nuts, Bolts, Screw threads, Simple parts of machines, Engines and Pumps. The elementary principles of geometry.

Third Year Course.

1. Mining Surveying.—Use of pens, Scales and protectors, Surveying by means of the chain only. The Miners dial, Loose needle surveying, Fixed needle surveying, Levelling, Field books, Contouring. The use of the Plane Table. The Theodolite and its uses, Plotting by co-ordinates. Setting out and alignment. The adjustment of instruments.

2. The Principles of Coal Mining—(1) Geology.—General structure of the earth's crust, igneous and aqueous rocks; definitions of outcrop, dip, strike, fault, roll, wash-out and dyke, etc., recording geological observations reading a geological map, description of the Indian coalbearing rocks, composition and properties of coal, commercial values of coal.

(2) Exploration.—Prospecting, trial shafts and trenching, advantages of boring, methods of boring, driving through faults, uses of boreholes in mines, etc.

(3) Breaking ground.—Common tools, storage and use of explosives, electric fuses, machine drills, coal-cutting machines.

(4) Sinking.—Site of colliery, position of inclines and shafts, their excavation and shapes, apparatus used in sinking, lining shafts, arrangements at top of sinking shaft, brief mention of special methods of sinking.

(5) Methods of working.—Quarrying, advantages of bench work, disposal of soil, shaft pillars, pillar and gallery method, working thick seams in stages, extraction of pillars, panel, brief description of long wall and chambering methods.

(6) Supporting.—Props and lids, bars, chocks or cogs, square sets, special timbering in loose ground, arching, steel girders, packing, dry and hydraulic stowing.

(7) Mine gases.—Their experimental preparation by chemicals and illustration of their physical and physicological properties, their chemical composition, methods of detecting, explosions, spontaneous combustion of coal, dangers of coal-dust.

(8) Ventilation.—Ascensional currents, currents induced by the heat of steam or furnace, mine fans, friction of air in mines, theory of splitting the air, calculations of ventilating pressure, etc., coursing the air measurement of quantity of air, use of anemometer, water-gauge, thermometer and barometer, reserving the air current.

(9) Safety lamps.—Principle of the safety lamps, Sir Humphrey Davys' experimental types of safety lamps, firedamp detectors.

3. The Principles of Mechanical and Electrical Engineering of Coal Mines-(1) Applied Mechanics.—The practical application of the principles taught in the 1st and 2nd years.

MISCELLANEOUS—contd.

Statement No. 6—concld.

(2) Steam, electricity and compressed air.—Theory of steam boilers and their fittings, the steam engine, the dynamo, the electric motor, electric lighting and airing, the air compressor.

(3) Winding.—Types of winding engines and description of parts, calculation of the dimensions of winding engines, strength of ropes and chains, detaching hooks, over-winding prevention devices, rope cappings, care and examination of ropes, buckets, cages, guide ropes.

(4) *Pumping.*—The lift pump, the force pump, sinking pumps, pumps with positive value motion, the pulsometer, turbine pumps, calculations of the dimensions of pumps, methods of supporting pumps and pipes, strength of pipes, pipe joints, dams to hold back water.

(5) Hauling.—Tramways, tubs, hand tramming, horse haulage, self-acting inclines, locomotives, single rope haulage, main and tail rope haulage, endless rope or chain haulage, calculations of the dimensions of hauling engines, ropes, etc., capping of haulage ropes, couplings, haulage clips, etc., signalling.

(6) Surface arrangements.—Headframes and pulleys, receiving frames, keps, arrangements of roads on pit bank, tipplers, simple screening and sizing, railway sidings, aerial ropeways.

(7) Simple treatment of coking and bye-product ovens.

DEPARTMENT OF MINES, DHANBAD :

The 1st August, 1922.

D. PENMAN,

Assistant Secretary, Mining Education Advisory Board,

Statement No. 7.

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

(5) The examinations will be advertised at least four months before the dates of the examinations, and applications, which must be on the prescribed form and supported by original certificates as to experience and character, and accompanied by fees, will be received up to a date, duly advertised, not less than one month prior to the examinations. No application which is not in the prescribed form, or which is not supported by the certificates and fees referred to above, or which is not submitted in due time, will be considered by the Board.

(6) The subjects for examination shall be :--

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(a) Geology and Mining.—The geological features of the Coalfields of India, and the application of geology to coal mining. Boring, Sinking. Methods of laying out and working: Supporting roof and sides. The use of explosives. Dams.

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MISCELLANEOUS—contd.

Statement No. 7-contd.

- (b) Ventilation, Explosions, Underground fires and inundations.—Natural ventilation. Fans and other means of ventilation. The distribution, measurement and control of air in mines. Mine gases. The construction, use and testing of safety lamps. Spontaneous heating. Coal dust. Recovery of mines after explosions, fires and inundations.
- (c) Machinery.—Strength of materials. Steam. Compressed air. Electricity. Winding. Hauling. Pumping. Transmission of power. Mechanical coal-cutting and drilling.
- (d) Surveying, Levelling and Mensuration.—Magnetic declination. Loose and fast needle surveying. The theodolite. Contour lines and levelling. Calculations and triangulation. Connecting of surface and underground surveys. Mine plans. Instruments.
- (e) Management and Mining Legislation.—Organization. Indian Mines Act and Rulesunder the Act. Other legislation applicable to mines. Sanitation.

(7) The examination 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.

The examiners shall have power to eliminate the oral examination in the case of candidates who do not reach a standard in the written examination to be prescribed by the Board of Examiners.

		FIRST CLASS	5.	SECOND CLASS.		
Subject.	Papers.	Viva voce.	Total.	Papers.	Viva voce.	Total.
1	2	3	4	5	6	7
Geology and Mining	110		140	100	40	140
Ventilation, Explosions, Underground fires and inundations.	75	25	100	70	30	100
Machinery	90	30	120	80	40	120
Surveying, Levelling and Mensuration	50	10	60	45	15	60
Management and Mining Legislation	60	20	80	50	30	80
TOTAL	385	115	500	345	155	500

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

(9) A can lidate for a certificate of competency must qualify in each of the subjects for examination, and must obtain 40 per cent. of the maximum marks obtainable for each paper, 40 per cent. of the maximum marks for the oral examination and 60 per cent. on the whole examination (written and oral) to qualify.

(10) 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.

(11) The Secretary to the local examiners shall submit a report of 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.

(12) The questions to be set at the examinations shall be prepared by the Board of Examiners which may, at its discretion, confer with the local examiners.

(13) At least one examination for first class candidates and at least one examination for second class candidates shall be held annually in one of the Bengal or Bihar and Orissa 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,

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MISCELLANEOUS—contd.

Statement No. 7—concld.

(14) No candidate will be allowed to take part in the examination until he has produced an authorization from the Board of Examiners.

(15) Every candidate must sign a register, in which he will be given a definite number. He must sign his name and write his registered number at the top of every page of the paper on which he writes the answers to the questions.

(16) The number of the question must be given in **bold** figures before the answer to each question.

(17) The calculations and work by which a result is obtained must be clearly shown in immediate connection with the answer to each question.

(18) Answers must be strictly confined to the questions asked.

(19) Sketches may be made to make answers clear.

(20) When sketches are asked for, it should be understood that, unless otherwise stated, freehand sketches, with dimensions, are all that is necessary, and candidates should not spend time in making finished drawings.

(21) Any candidate speaking to any other candidate ^during the examination, or using any book, notes or private paper, or acting in any manner which the examiners consider improper will be liable to be disqualified at their discretion. The Board of Examiners may in such a case use their discretion as to allowing the candidate to sit at any future examination.

(22) When a candidate has completed the answers to the questions, or when the time allowed for answering the questions has elapsed, or he has been disqualified, he must hand the paper of questions and his answers to the examiners, and at once leave the examination room.

(23) A time-table will be supplied to each candidate at the commencement of the first day's examination.

(24) The oral examination will be held at a subsequent date. Only those candidates who obtain a certain degree of proficiency in the written examination will be examined orally. Due notice of time and place will be sent to each candidate required by the examiners for oral examination.

(25) The number of marks given for each question will be shown in brackets at the end of the question.

(26) Ink and paper will be provided, and no paper other than the official paper provided may be used. Candidates must bring their own pens and pencils, drawing pens and drawing instruments, including a protractor.

These regulations cancel all previous regulations and shall take effect from the 1st January 1923.

R. R. SIMPSON,

Chief Inspector of Mines in India

and ex-officio President of the Board of Examiners.

DHANBAD,

The 10th June, 1922.

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Miscellaneous—contd.

Statement No. 8.

DEPARTMENT OF INDUSTRIES.

NOTIFICATION.

Simla, the 29th June, 1922.

No. M.-498.—In exercise of the powers conferred by section 20 of the Indian Mines Act, 1901 (VIII of 1901), the Governor General in Council is pleased to make the following amendments in the rules published with the notification of the Government of India in the Department of Commerce and Industry, No. 11793-103, dated the 30th December 1908.

1. For rule 1 of the said rules the following shall be substituted, namely :---

- "(1) On or before the tenth day of every month, the owner, agent or manager of every coal mine shall send to the Chief Inspector of Mines a correct return for the preceding calendar month in Form I in the Schedule to these rules.
- (2) The owner, agent or manager of every mine shall submit annual returns in Forms II, III, IV and V as prescribed in the Schedule to these rules. In addition to these returns, the owner, agent or manager shall submit returns, in the case of a coal mine in Forms VI, VII and VIII, in the case of a mica mine in Forms IX and X, and in the case of any other mine in Forms VI, IX and XI in the Schedule to these rules.
- (3) The returns prescribed by sub-rule (2) shall be made out in duplicate and before the twenty-first day of January in the year following that to which they refer the owner, agent or manager shall forward one copy to the Chief Inspector of Mines and the other to the District Magistrate.
- (4) If the owner of any mine abandons the mine or discontinues the working of the mine for more than three months or if a change of ownership occurs, the returns required by sub-rule (2) shall be submitted by the owner or the former owner, as the case may be, within one month from the date of abandonment or change of ownership or within three months from the date of discontinuance :
- Provided that by order in writing the Chief Inspector of Mines may extend the period for the submission of such returns up to any date not later than the twenty-first day of January in the year following that to which they refer.

Provided further that nothing in this sub-rule shall be interpreted as authorising the submission of any return later than the twenty-first day of January in the year following that to which it refers."

2. In rule 8 of the said rules, for the words and figures "Form VII in the Schedule hereto annexed" the words and figures "Form XII in the Schedule to these rules" shall be substituted, and after the word "explosion" the words "or ignition" shall be inserted.

3. For the Schedule to the said rules, the following shall be substituted, namely :--

THE SCHEDULE.

FORM I.

(FOR COAL MINES ONLY.)

Monthly return of coal raisings and coal despatches for the month 19.

1. Name of mine	•
2. Name of owner	
3. Postal address of owner	
4. Raisings of coal of all kinds (includin making). Tons	ng colliery consumption and coal used for coke
5. Despatches of coal. Tons-	
6. Signature of owner, agent or manager-	·
Dated	
[NorzUnder Section 22 (2) (b) of the Indian Mines	Act, failure to forward a correct return to the Chief Inspector

[NOTE.—Under Section 22 (2) (b) of the Indian Mines Act, failure to forward a correct return to the Chief Inspector of Mines by the prescribed date will render the agent, owner or manager liable, on conviction, to a penalty which may extend to Rs. 500.].

Miscellaneous-contd.

Statement No. 8-contd.

FORM II.

1

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(FOR ALL MINES.)

Annual return for the year ending on the 31st December 19 .

1. Name of mine
2. Postal address of mine
3. Date of opening
4. Date of closing (if closed)
• District
Name of owner
6. { Postal address of owner
7. { Name of Managing Agents (if any)
8. { Name of Agent (if any), as defined in Section 3 (a) of the Indian Mines Act
Postal address of Agent
9. { Name of Manager Postal address of Manager
10. Name of mineral worked
11. Means by which the mineral is raised from the mine, <i>i.e.</i> , hand labour, mechanica or electrical power

[Nors.-Under Section 22 (2) (1) of the Indian Mines Act, failure to forward a correct return to the Chief Inspector of Mines by the prescribed date will render the agent, owner or manager liable, on conviction, to a penalty which may extend to Res 500.]

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Miscellaneous—contd.

Statement No. 8-contd.

FORM III.

(FOR ALL MINES.)

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*

Persons employed during the year ending on the 31st December 192 .

			·		ngs of the mi	ATTENDANCE	On surfa mine, i and	NUMBER OF ce and not ncluding all persons emj ing wharves l auriace tra	DAYS WORE in the working subordinate ployed on sing private rai annways and arting.	TED. mgs of the officials lings.	GREGATE NUMBER OF
Class of labour.	Aggregate number of daily attendance during the year of persons permanently and temporarily employed.	Number of days worked.	Males ovor 12 years of ago.	Females over 12 years of age.	Childron under 12 years of age.	Total	Males over 12 years of age.	Females over 12 years of age.	Children under 12 years of age.	Total	Gross total obtained by adding totals in columns 7 and 11. This should equal the number obtained by dividing the number in column 2 by the number in column 3.
1	2	3	4	5	6	7	8	0	10		12
Miners				s				, ,			

Miscellaneous-contd.

Statement No. 8-contd.

FORM III—contd.

• H	OURS AND WAGES.	
Class of labour.	Average number of hours worked per week per person.	Average weekly earnings per person.
Minors		
Other persons employed underground	•	
Other persons employed on surface		• • • •
•		
	· · ·	
1	· · ·	
· · · ·	• 1	/
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Nors .- Where wages are paid monthly, it is permissible to enter figures for the month, but the fact that they are such should be clearly stated.

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103

Miscellaneous—contd.

Statement No. 8-conid.

FORM IV.

(FOR ALL MINES.)

Accidents and Prosecutions.

•

NUMBER OF SEPARAT	TE ACCIDENTS [*] BEPORTE	D DUBING THE YEAR.	NUMBER OF	PERSONS.		
Fatal.	Serious.	Тотаг.	Killed.	Seriously injured.	Number of prosecutions instituted by the management, with the sections and rules under which the pro- secutions were instituted.	Number of persons convicted, with the sections and rules under which the convic- tions were obtained.
1.	2	3	. 4	5	6	7
			•			
		、 、			•	•
						``
•						
	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -					•

* Accidents, which were reported as serious accidents but resulted fatally, should be entered as fatal accidents.

Miscellaneous-contd.

Statement no. 8-contd.

FORM V.

(FOR ALL MINES.)

•

Epidemic Diseases.

				-			Na	ame (of disc	asc.*			•	,		_		•	Date	of appearan	ice.	Dai	appearan	 Numl	per of cases.	Number of deaths.
Cholen	<u> </u>	•	• ,	•	•	•	•	•	•	•	•		•	•	•	•	•	•	4							
Plague		•	•	•	•		•	•	•	•		•	•		•	•	•	•			•					
Smail -j Influen			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		ı	•				١	•
							•		•	۰.						•	ʻ.		•	• 7						
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					•		÷							ı		.*	•			x	•					

* Figures for any other specified disease which has been epidemic at the mine should be entered in this form.

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APPENDIX IV—conid.

Miscellaneous-contd.

Statement no. 8—contd.

FORM VI.

•

(FOR -ALL MINES EXCEPT MICA MINES.)

Type and aggregate horse-power of electrical apparatus.

.

ystem of supply (w	hotho	cont	inuous	s curr	ent or	altern	ating	curre	nt)—			•	
Voltage of supply	•	•	•	•	•		•	٠	•	-	•	•	
- Periodicity		_		_		•	_						-
	•	•	•	•	•	•	•	•	•	•	٠	•.	
Source of supply		٠	•	•	•	•	•	•	•	•	•		
oltage at which cu	rront	is usc	d for_	-								i	
Lighting .		•	:		•		•	•		•	•		
			-									1	
Power	•	•		•	•	•	•	•	•	•	•	• ·	
Aggregate horse-por	ver of	moto	rs inst	alled	on su	rface f	or—			,		i	
Winding .	•			•		•	•		•		•	,	
Ventilation .								•		•	•		
	-	-		÷		-		-	•				
Haulage .	•	•	•	٠	•	• .	•	• ,	•	٠	•	•	
Coal washing or	screen	ing	•	•	• •	•	•	•	•	•	•	•.	
* Ore dressing	•	•	•	•	•	•	•	•	•	•	•	•	
Miscellaneous	•	•	• .	•		•	•	•	•	•			
			•	_									!
_								To	ai ho	rse-po	wer	•	
Aggregate horse-po	W61 0	f mot	ors ins	talled	l belov	v grou	nd for	·					
Haulage .			•			••	•	•	•	•	•	٠	
Dum-ing	-					-	-		*			· •	
Pumping .	•	•	•	•	•	•	•	•	•	•	•	-	.
Portable machi	nery		•	•	•	•	•	•	•	•	•	•	
Miscellaneous	•	•	•		-	•	•	••	•	•	•	٠	
•								То	tal ho	erso-po	ower	•	
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* In the case of a mine, other than a coal mine.

Miscellaneous—contd.

Statement no. 8-contd.

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FORM VII.

(FOR COAL MINES ONLY.)

Explosives, safety lamps, mechanical ventilators, and coal-cutting machines.

Explosive ³ .			s	AFETY I	AMP9.	,	Me	CHANICAL VENTILATO	RS.	l Y	COAL-C	UTTING MACH	in 89 ,
	લુ	detonators	lamps.	Nc. oi and	f safety l metho locking.	lamps d of	mschanical	quantity iced por	tained.		., eloctri- ssod air.		juare feet
Name of explosive.	Quantity used in lb.	Number of d used.	Name of safety lampa.	Scrow.	Lead rivet.	Magnetic.	Name of m ventilator.	Average total qua of air produced minuto.	Water gauge obtained.	Name and type.	Power used, i.e., city or compresse	Number i n uso.	Total No. of sq cut.
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Miscellaneous-contd.

Statement no. 8-contd.

FORM VIII.

(FOR COAL MINES ONLY.)

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Output for year ending on the 31st December 19 :

•	Opening stocks on Ist January 19	Raisings (including colliery consumption and coal used for coke making).	Total of columns 2 and 3.	Total value of raisings (" Value " means, and should be calculated upon actual or esti- mated selling price into wagons at the mine).	Despatches.	Colliery consump- tion (exclusive of coal used for coke making).	Coal deli- vered for coking on colliery.	Closing stocks on 31st December 19.	Total of columns 6, 7, S and 9.
1	L 2	3	4	5	6	7	8	9	10
· ·	Tous.	Tons.	Tons.	Rs.	Tons.	Tons.	Tons.	Tons.	Tons.
Coal, including rabble, slack and dust.	•	•	•						

Coal despatched to coke factories - . . -

Tons.

Nore.-The total in column 4 must be the same as the total in column 10.

The figures should be in tons and rupees, omitting cwt. and annas.

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Miscellaneous-contd.

Statement no. 8-contd.

FORM VIII—contd.

· · ·	Opening stocks.	Coke made.	Total of columns 1 and 2.	Coke dospatched.	· Closing stocks.	Total of columns 4 an.15.	Total value of coke made. ("Value" means, and should be calculated upon. actual or estimated selling price into wagons at the mine.)
	1	2	3	4	. 5	6	7
	Tons.	·Tons,	Tons.	Tons.	Tons.	Tons.	Rs,
•		•	,				
						} 1	
	,					-	
• •	,				,	· ·	
						•	
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Norg.—The total in column 3 must be the same as the total in column 6. The figures should be in tons and rupees omitting cwt. and annas. Signature of Owner, Agent or Manager— (If the form is signed by the Managing Agents, the word "for owner" should be added.

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Date of signature-

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Miscellan eous-contd.

Statement no. 8-contd.

FORM IX.

(FOR ALL MINES EXCEPT COAL MINES.)

Particulars of Explosives.

·	Explosives.	· · · · · · · · · · · · · · · · · · ·
Name of explosives.	Quantity used in lb	Number of detonators used.
		· · · · · · · · · · · · · · · · · · ·
•		· · · · · · · · · · · · · · · · · · ·
•		·
•	•	

Miscellaneous-contd.

Statement no. 8-contd.

FORM X.

(FOR MICA MINES ONLY.)

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Output for year ending on the 31st December 19 .

	•		Tota	l am¢	ount of	dress	sed M	ica ra	ised.				T	otal an	iount	of dres	sed mi	ca cons	igned.			Total value at the should be calc at the mine. mica out:	mine of mica ulated upon, Any charge ide the mine	consigne actual or s incurre should no	d. (" Value estimated se l in transpor of be include	" means, and elling price' ting the d.)
													 			2					'		3		a	
Cwt. Lb.	•	•	•			•	•					. Cwt. Lb)	•	•	•	 •	• .	• •		•		-				
			,	-			• •			• ,						- 4	•	·			-	•				<i>,</i> •
		•		·							•				·		•		、		-					

Signature of Owner, Agent or Manager-

(If the form is signed by Managing Agents, the words " for owners " should be added.)

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Date of signature

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Miscellaneous-contd.

Statement no. 8-contd.

FORM XI.

(FOR ALL MINES EXCEPT COAL AND MICA MINES.)

Output for year ending on the 31st December 19 .

Name of mineral raised, and metal (if any) ex- tracted.	 Total amount of mineral raised. The figures should be stated : (a) in the case of gem-stones in carats ; (b) in the case of alum, amber, asbestos, graphite, jadestone, steatite, tin-ore, tungsten-ore, in cwt., or where the circumstances require greater particularisation in order to give an accurate estimate of small outputs, in cwt. and lb. Output of radio-active minerals and rare minerals such as molybdenite, monazite, pitchblende, samarskite, tantalite, triplite, should be returned in owt. and lb; (c) in the case of clay, limestone, magnesite, marble, phosphatic-rock, salt, slate and other stone, and all metal-liferous ores except those referred to in (b), in tons. 	Total value at the mine of mineral raised. ("Value" means, and should be calcu- lated upon, actual or estimated selling price at the mine. Any charges incur- red in transporting the mineral outside the mine property should not be in- cluded.)	 Quantity of metal or metals extracted at the mine. Each metal should be shown separately : (2) in the case of gold, silver and other procious metals in Troy ounces; (b) in the case of tin, in owt., and fractions of cwt.; (c) in the case of other metals in tons and fractions of tons. 	Value of metal or metals extracted at the mine. The value of each metal should be shown sepa- rately.
1	2	3 •	4	5 '
-		· · · · · · · · · · · · · · · · · · ·		
Total .		·	•	

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Signature of Owner, Agent or Manager-

(If the form is signed by Managing Agents, the words " for owners " should be added.)

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Date of signature-----

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Miscellaneous-contd.

Statement no. 8-contd.

FORM XII.

(FOR ALL MINES.)

Notice of Accident.

From-District To-The Chief Inspector of Mines, through the District Magistrate of

SIR,

Dated

19.

I have the honour to furnish the following particulars of which has occurred at the	a serious accident an accidental explosion or ignition Mine :

2. Mineral worked .	•	•	•	•	•			
3. Name and postal	ddress of	own	er	•	•			
4. Name and	sex of pers	ons						
Killed.	Injured.		Ago.	Occupation.				
								•
5. Date and hour of	accident	•	•	-	•			
6. Place of accident	•	•	•	•	•			k
7. Cause and descrip	tion 、	•	•	٠	•			
8. Classification of a	ccident *	•	•		•			

I have the honour to be,

SIR,

Your most obedient servant,

Owner.

Agent.

Manager.

* Under one or other of the following heads, namely :---

(1) Explosions and ignitions of fire damp; (2) falls of roof; (3) falls of side; (4) in shafts (overwinding); (5) in shafts (ropes and chains breaking); (6) in shafts (while ascending or descending by machinery);
(7) in shafts (falling into the shafts from the surface); (8) in shafts (falling from part of the way down);
(9) in shafts (things falling from the surface); (10) in shafts (things falling from part of the way down);
(11) in shafts (miscellaneous); (12) suffocation by gates; (13) by explosives; (14) in uptions of water;
(15) haulage; (16) by underground machinery; (17) sundries underground; (18) by surface machinery;
(19) surface boilers or pipes bursting; (20) on surface railways or tramways belorging to the mine;
(21) by electricity; (22) miscellaneous on surface.

A. C. CHATTERJEE, Secretary to the Government of India,

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APPENDIX IV-contd.

Miscellaneous-contd.

Statement no. 8-concld.

A copy is forwarded to all Local Governments and Administrations for information.

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A copy is also forwarded to the Commissioner, Northern India Salt Revenue, Secretary, Indian Mining Association Secretary, Indian Mining Federation

By order, etc.,

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H. L. CHIBBER,

Assistant Secretary to the Government of India.

MISCELLANEOUS-contd.

Statement no. 9.

INDIAN MINES ACT, 1923

(Act No. IV of 1923).

WHEBEAS it is expedient to amend and consolidate the law relating to the regulation and inspection of mines; It is hereby enacted as follows :---

CHAPTER I.

Preliminary.

1. (1) This Act may be called the Indian Mines Act; 1923. Short title, extent and commencement.

(2) It extends to the whole of British India, including British Baluchistan and the Sonthal Parganas.

(3) It shall come into force on the first day of July, 1924.

2. Nothing in this Act shall be construed to affect the provisions of the Upper Burma Ruby XII of 1887. Regulation, 1887. Saving of Reg. XII of 1887.

Definitions.

3. In this Act, unless there is anything repug-nant in the subject or context,-

- (a) "agent," when used in relation to a mine, means any person appointed or acting as the representative of the owner in respect of the management of the mine or of any part thereof, and as such superior to a manager under this Act;
- (b) "Chief Inspector" means the Chief Inspector of Mines appointed under this Act;
- (c) "child" means a person under the age of thirteen years;
- (d) a person is said to be "employed" in a mine who works under appointment by or with the knowledge of the manager, whether for wages or not, in any mining operation, or in cleaning or oiling any part of any machinery used in or about the mine, or in any other kind of work whatsoever incidental to, or connected with, mining operations; (c) "Inspector" means an Inspector of Mines appointed under this Act, and includes
- a District Magistrate when exercising any power or performing any duty of an Inspector which he is empowered by this Act to exercise or perform ;
- () "mine" means any excavation where any operation for the purpose of searching for or obtaining minerals has been or is being carried on, and includes all works, machinery, tramways and sidings, whether above or below ground, in or adjacent to or belonging to a mine :

provided that it shall not include any part of such premises on which a manufacturing process is being carried on unless such process is a process for coke making or the dressing of minerals;

- (g) "owner," when used in relation to a mine, means any person who is the immediate proprietor or lessee or occupier of the mine or of any part thereof, but does not include a person who merely receives a royalty, rent or fine from the mine, or is merely the proprietor of the mine subject to any lease, grant or license for the working thereof, or is merely the owner of the soil and not interested in the minerals of the mine ; but any contractor for the working of a mine or any part thereof shall be subject to this Act in like manner as if he were an owner, but not so as to exempt the owner from any liability;
- (k) "prescribed" means prescribed by regulations, rules or bye-laws;
 (i) "qualified medical practitioner." means any person registered under the Medical 21 & 22 Vict. Act, 1858, or any Act amending the same or under any Act of any legislature C. 90. in British India providing for the maintenance of a register of medical practitioners, and includes, in any area where no such last-mentioned Act is in force, any person declared by the Local Government, by notification in the local official Gazette, to be a qualified medical practitioner for the purposes of this Act; (j) "regulations," "rules" and "bye-laws" mean respectively regulations, rules and

 - (b) Togettions, the under this Act;
 (c) "serious bodily injury " means any injury which involves, or in all probability will involve, the permanent loss of the use of, or permanent injury to, any limb, or the permanent loss of or injury to the sight or hearing, or the fracture of any limb or the enforced absence of the injured person from work for a period exceed-
 - ing twenty days; and (1) "week" means the period between midnight on Saturday night and midnight on the succeeding Saturday night.

MISCELLANEOUS—contd.

Statement no. 9—contd.

CHAPTER II.

Inspectors.

4. (/) The Governor General in Council may, by notification in the Gazette of India, Chiof Inspector and Inspectors. Chiof Inspector and Inspect

and duly qualified persons to be Inspectors of Mines subordinate to the Chief Inspector. (2) No person shall be appointed to be Chief Inspector or an Inspector, or, having been

appointed, shall continue to hold such office who is or becomes directly or indirectly interested in any mine or mining rights in India.

(3) The District Magistrate may exercise the powers and perform the duties of an Inspector subject to the general or special orders of the Local Government :

Provided that nothing in this sub-section shall be deemed to empower a District Magistrate to exercise any of the powers conferred by section 19 or section 32.

(4) The Chief Inspector and every Inspector shall be deemed to be a public servant within the meaning of the Indian Penal Code.

5. (1) The Chief Inspector may, by order in writing, prohibit or restrict the exercise by Functions of Inspectors. on Inspectors by this Act, and shall, subject as aforesaid, declare the local area or areas within which, or the group or class of mines with respect to which, Inspectors shall exercise their respective powers.

(2) The Inspector shall give information to owners, agents and managers of mines, situate within the local area or areas or belonging to the group or class of mines, in respect of which he exercises powers under sub-section (1) as to all regulations and rules which concern them respectively and as to the places where copies of such regulations and rules may be obtained.

Powers of Inspectors of Mines.

(a) make such examination and inquiry as he thinks fit in order to ascertain whether the provisions of this Act and of the regulations, rules and bye-laws and of any orders made thereunder are observed in the case of any mine;

6. The Chief Inspector and any Inspector may-

- (b) with such assistants (if any) as he thinks fit, enter, inspect and examine any mine or any part thereof at any reasonable time by day or night, but not so as unreasonably to impede or obstruct the working of the mine;
- (c) examine into, and make inquiry respecting, the state and condition of any mine or any part thereof, the ventilation of the mine, the sufficiency of the bye-laws for the time being in force relating to the mine, and all matters and things connected with or relating to the safety of the persons employed in the mine.

7. Any person in the service of the Government duly authorised by a special order in writing of the Chief Inspector or of an Inspector in

Powers of special officer to enter, measure, etc. this behalf may, for the purpose of surveying, evelling or measuring in any mine, after giving not less than three days' notice to the manager of such mine, enter the mine and may survey, level or measure the mine or any part thereof at any reasonable time by day or night, but not so as unreasonably to impede or obstruct the working of the mine.

8. Every owner, agent and manager of a mine shall afford the Chief Inspector and every Facilities to be afforded to Inspectors. Facilities to be afforded to Inspectors.

entry, inspection, survey, measurement, examination or inquiry under this Act.

9. (1) All copies of, and extracts from, registers or other records appertaining to any mine, and all other information acquired by the

Secrecy of information obtained. Chief Inspector or an Inspector or by any one assisting him in the course of the inspection of any mine under this Act or acquired by any person authorised under section 7 in the exercise of his duties thereunder, shall be regarded as confidential.

(2) If the Chief Inspector, or an Inspector or any other person referred to in sub-section (1) discloses to any one, other than a Magistrate or an officer to whom he is subordinate, any

XLV of 1860.

APPENDIX IV—contd.

MISCELLANEOUS—contd.

Statement no. 9-contd.

such information as aforesaid without the consent of the Governor General in Council or of the Local Government, he shall be guilty of a breach of official trust, and shall be punishable in the manner provided by section 4 of the Indian Official Secrets Act, 1889.

(3) No Court shall proceed to the trial of any offence under this section except on complaint made by order of, or under authority from, the Governor General in Council or the Local Government, or made by a person aggrieved by the offence.

CHAPTER III.

Mining Boards and Committees.

10. (1) The Local Government may constitute for the province, or for any part of the province, or for any group or class of mines in the province, a Mining Board consisting of—

- (a) a person in the service of the Government, not being the Chief Inspector or an Inspector, nominated by the Local Government to act as chairman;
- (b) the Chief Inspector or an Inspector;
- (c) two persons, neither of whom shall be the Chief Inspector or an Inspector nominated by the Local Government, of whom one shall be a person qualified to represent the interests of persons employed in mines;
- (d) two persons nominated by owners of mines or their representatives in such manner as may be prescribed.
- (2) The chairman shall appoint a person to act as secretary to the Board.

(3) The Local Government may give directions as to the payment of travelling expenses incurred by the secretary or any member of any such Mining Board in the performance of his duty as such secretary or member.

- 11. (1) Where under this Act any question relating to a mine is referred to a Committee, Committees. the Committee shall consist of—
 - (a) a chairman nominated by the Local Government or by such officer or authority as the Local Government may authorise in this behalf;
 - (b) a person nominated by the chairman and qualified by experience to dispose of the question referred to the Committee; and
 - (c) two persons of whom one shall be nominated by the owner, agent or manager of the mine concerned, and the other shall be nominated by the Local Government to represent the interests of the persons employed in the mine.

(2) No Inspector or person employed in or in the management of any mine concerned shall serve as chairman or member of a Committee appointed under this section.

(3) Where an owner, agent or manager fails to exercise his power of nomination under clause (c) of sub-section (1), the Committee may, notwithstanding such failure, proceed to inquire into and dispose of the matter referred to it.

(4) The Committee shall hear and record such information as the Chief Inspector or the Inspector, or the owner, agent or manager of the mine concerned, may place before it, and shall intimate its decision to the Chief Inspector or the Inspector and to the owner, agent or manager of the mine, and shall report its decision to the Local Government.

(5) On receiving such report the Local Government shall pass orders in conformity therewith unless the Chief Inspector or the owner, agent or manager of the mine has lodged an objection to the decision of the Committee, in which case the Local Government may proceed to review such decision and to pass such orders in the matter as it may think fit. If an objection is lodged by the Chief Inspector, notice of the same shall forthwith be given to the owner, agent or manager of the mine.

(6) The Local Government may give directions as to the remuneration, if any, to be paid to the members of the Committee or any of them, and as to the payment of the expenses of the inquiry including such remuneration.

12. (1) Any Mining Board constituted under section 10 and any Committee constituted Powers of Mining Boards. Powers of Mining Boards.

sary or expedient to exercise for the purpose of deciding or reporting upon any matter referred to it.

XV of 1889.

MISCELLANEOUS—contd.

Statement no. 9—conid.

(2) Every Mining Board constituted under section 10 and every Committee appointed under section 11 shall have the powers of a Civil Court under the Code of Civil Procedure, 1908, for the purpose of enforcing the attendance of witnesses and compelling the production of documents and material objects; and every person required by any such Mining Board or Committee to furnish information before it shall be deemed to be legally bound to do so within the meaning of section 176 of the Indian Penal Code.

13. The Local Government may direct that the expenses of any inquiry conducted by a Mining Board constituted under section 10 or

Recovery of expenses.

Notice to be given of mining operations.

by a Committee appointed under section 11 shall be borne in whole or in part by the owner or agent of the mine concerned, and the amount so directed to be paid may, on application by the Chief Inspector or an Inspector to a Magistrate having jurisdiction at the place where the mine is situated or where such owner or agent is for

CHAPTER IV.

the time being resident, be recovered by the distress and sale of any moveable property within the limits of the Magistrate's jurisdiction belonging to such owner, agent or manager.

Mining Operations and Management of Mines.

14. The owner, agent or manager of a mine shall, in the case of an existing mine within

one month from the commencement of this Act or, in the case of a new mine, within three months

after the commencement of mining operations, give to the District Magistrate of the district in which the mine is situated notice in writing in such form and containing such particulars relating to the mine as may be prescribed.

15. (1) Save as may be otherwise prescribed, every mine shall be under one manager who

shall have the prescribed qualifications and shall Managers. be responsible for the control, management and direction of the mine, and the owner or agent of every mine shall appoint himself or some other

person, having such qualifications, to be such manager. (2) If any mine is worked without there being a manager for the mine as required by subsection (1), the owner and agent shall each be deemed to have contravened the provisions of this section.

16. (1) The owner, agent and manager of every mine shall be responsible that all opera-Duties and responsibilities of owners, agents tions carried on in connection therewith are conducted in accordance with the provisions of this and managors. Act and of the regulations, rules and bye-laws and of any orders made thereunder.

(2) In the event of any contravention of any such provisions by any person whomsoever, the owner, agent and manager of the mine shall each be deemed also to be guilty of such contravention unless he proves that he had taken all reasonable means, by publishing and to the best of his power enforcing those provisions, to prevent such contravention :

Provided that the owner or agent shall not be so deemed if he proves-

- (a) that he was not in the habit of taking, and did not in respect of the matter in ques-· tion take, any part in the management of the mine; and
- (b) that he had made all the financial and-other provisions necessary to enable the manager to carry out his duties; and
- (c) that the offence was committed without his knowledge, consent or connivance.

(3) Save as hereinbefore provided, it shall not be a defence in any proceedings brought against an owner or agent of a mine under this section that a manager of the mine has been appointed in accordance with the provisions of this Act.

CHAPTER V.

Provisions as to Health and Safety.

17. There shall be provided and maintained for every mine latrine and urinal accommodation of such kind and on such scale, and such supply of water fit for drinking, Conservancy.

as may be prescribed.

V of 1908.

XLV of 1860.

APPENDIX IV—conid.

MISCELLANEOUS—contd.

Statement no. 9—contd.

18. At every mine in respect of which the Local Government may, by notification in the local official Gazette, declare this section to apply,

Medical appliances. such supply of ambulances or stretchers, and of splints, bandages and other medical requirements, as may be prescribed, shall be kept ready at hand in a convenient place and in good and serviceable order.

19. (1) If, in any respect which is not provided against by any express provision of this Act or of the regulations, rules or bye-laws or

Powers of Inspectors when causes of danger not expressly provided against exist or when employment of persons is dangerous.

Act or of the regulations, rules or bye-laws or of any orders made thereunder, it appears to the Chief Inspector or the Inspector that any mine, or any part thereof or any matter, thing

mine, or any part thereof or any matter, thing or practice in or connected with the mine, or with the control, management or direction thereof, is dangerous to human life or safety, or defective so as to threaten, or tend to, the bodily injury of any person, he may give notice in writing thereof to the owner, agent or manager of the mine, and shall state in the notice the particulars in which he considers the mine, or part thereof, or the matter, thing or practice, to be dangerous or defective and require the same to be remedied within such time as he may specify in the notice.

(2) If the Chief Inspector or an Inspector authorised in this behalf by general or special order in writing by the Chief Inspector is of opinion that there is urgent and immediate danger to the life or safety of any person employed in any mine or part thereof, he may, by an order in writing containing a statement of the grounds of his opinion, prohibit, until the danger is removed, the employment in or about the mine or part thereof of any person whose employment is not in his opinion reasonably necessary for the purpose of removing the danger.

(3) Where an order has been made under sub-section (2) by an Inspector, the owner, agent or manager of the mine may, within ten days after the receipt of the order, appeal against the same to the Chief Inspector who may confirm, modify or cancel the order.

(4) The Chief Inspector or the Inspector making a requisition under sub-section (1) or an order under sub-section (2), and the Chief Inspector making an order (other than an order of cancellation in appeal under sub-section (3), shall forthwith report the same to the Local Government and shall inform the owner, agent or manager of the mine that such report has been so made.

(5) If the owner, agent or manager of the mine objects to a requisition made under subsection (1) or to an order made by the Chief Inspector under sub-section (2), or sub-section (3), he may, within twenty days after the receipt of the notice containing the requisition or of the order or after the date of the decision of the appeal, as the case may be, send his objection in writing, stating the grounds thereof, to the Local Government, which shall refer the same to a Committee.

(6) Every requisition made under sub-section (1), or order made under sub-section (2), or sub-section (3) to which objection is made under sub-section (5), shall be complied with pending the receipt at the mine of the decision of the Committee :

Provided that the Committee may, on the application of the owner, agent or manager, suspend the operation of a requisition under sub-section (1) pending its decision on the objection.

(7) Nothing in this section shall affect the powers of a Magistrate under section 144 of the Code of Criminal Procedure, 1898.

20. When any accident occurs in or about a mine causing loss of life or serious bodily injury,

Notice to be given of accidents. or when an accidental explosion, ignition, outbreak of fire or irruption of water occurs in or about a mine, the owner, agent or manager of the mine shall give such notice of the occurrence to such authorities, and in such form, and within such time, as may be prescribed.

21. (1) When any accidental explosion, ignition, outbreak of fire or irruption of water Power of Government to appoint court of inquiry in cases of accidents. or other accident has occurred in or about any mine, the Local Government, if it is of opinion

that a formal inquiry into the causes of, and circumstances attending, the accident ought to be held, may appoint a competent person to hold such inquiry, and may also appoint any person or persons possessing legal or special knowledge to act as assessor or assessors in holding the inquiry.

(2) The person appointed to hold any such inquiry shall have all the powers of a Civil Court under the Code of Civil Procedure, 1908, for the purpose of enforcing the attendance of wit- V of 1908. nesses and compelling the production of documents and material objects; and every person

V of 1898.

MISCELLANEOUS-contd.

Statement no. 9-contd.

XLV of 1860.

required by such person as aforesaid to furnish any information shall be deemed to be legally bound to do so within the meaning of section 176 of the Indian Penal Code.

(3) Any person holding an inquiry under this section may exercise such of the powers of an Inspector under this Act as he may think it necessary or expedient to exercise for the purposes of the inquiry.

(4) The person holding an inquiry under this section shall make a report to the Local Government stating the causes of the accident and its circumstances, and adding any observations which he or any of the assessors may think fit to make.

22. The Local Government may cause any report submitted by a Committee under section

11 or by a court of inquiry under section 21 to Publication of reports. be published at such time and in such manner as it may think fit.

CHAPTER VI.

Hours and Limitation of Employment.

Hours of employment.

23. No person shall be employed in a mine-

(a) on more than six days in any one week,

(b) if he works above ground, for more than sixty hours in any one week,

(c) if he works below ground, for more than fifty-four hours in any one week.

24. Nothing in section 23 shall apply to persons who may by rules be defined to be persons holding positions of supervision or management

Supervising staff.

or employed in a confidential capacity. 25. In case of an emergency involving serious risk to the safety of the mine or of persons employed therein, the manager may, subject

Exomption from provisions regarding employto the provisions of section 19, permit persons ment. to be employed in contravention of section 23 on

such work as may be necessary to protect the safety of the mine or of the persons employed therein:

Provided that, where such occasion arises, a record of the fact shall immediately be made by the manager and shall be placed before the Chief Inspector or the Inspector at his next inspection of the mine.

26. No child shall be employed in a mine, or be allowed to be present in any part of a mine which is below ground. Children.

27. (1) If any question arises between the Chief Inspector or the Inspector and the manager

of any mine as to whether any person is a child, Disputes as to age.

the question shall, in the absence of a certificate as to the age of such person granted in the prescribed manner, be referred by the Chief Inspector or the Inspector for decision to a qualified medical practitioner.

(2) Every certificate as to the age of a person which has been granted in the prescribed manner and any certificate granted by a qualified medical practitioner on a reference under sub-section (1) shall, for the purposes of this Act, be conclusive evidence as to the age of the person to whom it relates.

28. For every mine there shall be kept in the prescribed form and place a register of all

Register of employees.

persons employed in the mine, of their hours of work, of their days of rest, and of the nature of

their respective employments.

CHAPTER VII.

Regulations, Rules and Bye-laws.

29. The Governor General in Council may, by notification in the Gazette of India, make Power of Governor General in Council to make regulations consistent with this Act for all or any of the following purposes, namely :--regulations.

(a) for prescribing the qualifications to be required by a person for appointment as Chief Inspector or Inspector;

MISCELLANEOUS-contd.

Statement no. 9—contd.

- (b) for prescribing and regulating the duties and powers of the Chief Inspector and of Inspectors in regard to the inspection of mines under this Act;
- (c) for prescribing the duties of owners, agents and managers of mines and of persons acting under them;
- (d) for prescribing the qualifications of managers of mines and of persons acting under them;
- (c) for regulating the manner of ascertaining, by examination or otherwise, the qualifications of managers of mines and persons acting under them, and the granting and renewal of certificates of competency;
- (f) for fixing the fees, if any, to be paid in respect of such examinations and of the grant and renewal of such certificates;
- (g) for determining the circumstances in which and the conditions subject to which it shall be lawful for more mines than one to be under a single manager, or for any mine or mines to be under a manager not having the prescribed qualifications;
- (h) for providing for the making of inquiries into charges of misconduct or incom petency on the part of managers of mines and persons acting under them and for the suspension and cancellation of certificates of competency;
- (i) for regulating, subject to the provisions of the Indian Explosives Act, 1884, and IV of 1884 of any rules made thereunder, the storage and use of explosives;
- (j) for prohibiting, restricting or regulating the employment in mines or in any class of mines of women either below ground or on particular kinds of labour which are attended by danger to the life, safety or health of such women;
- (k) for providing for the safety of the persons employed in a mine, their means of entrance thereinto and exit therefrom, the number of shafts or outlets to be furnished, and the fencing of shafts, pits, outlets, pathways and subsidences:
- (l) for providing for the safety of the roads and working places in mines, including the siting and maintenance of pillars and the maintenance of sufficient barriers between mine and mine;
- (m) for providing for the ventilation of mines and the action to be taken in respect of dust and noxious gases;
- (n) for providing for the care, and the regulation of the use, of all machinery and plant and of all electrical apparatus used for signalling purposes;
- (o) for requiring and regulating the use of safety lamps in mines;
- (p) for providing against dangers arising out of the accumulation of water in mines;
- (q) for prescribing the notices of accidents and dangerous occurrences, and the notices, reports and returns of mineral output, persons employed and other matters provided for by regulations, to be furnished by owners, agents and managers of mines, and for prescribing the forms of such notices, returns and reports, the persons and authorities to whom they are to be furnished, the particulars to be contained in them, and the time within which they are to be submitted;
- (r) for prescribing the plans to be kept by owners, agents and managers of mines and
- the manner and places in which such plans are to be kept for purposes of record ; (s) for regulating the procedure on the occurrence of accidents or accidental explosions
 - or ignitions in or about mines;
- (*t*) for prescribing the form of, and the particulars to be contained in, the notice to be given by the owner, agent or manager of a mine under section 14; and <u>a fac</u>
- (u) for prescribing the notice to be given by the owner, agent or manager of a mine before mining operations are commenced at or extended to any point within fifty yards of any railway subject to the provisions of the Indian Railways Act, 1890, or of any public work or classes of public works which the Local Govern-IX of 1890, ment may, by general or special order, specify in this behalf.

30. The Local Government may, subject to the control of the Governor General in Council Power of Local Governments to make rules. by notification in the local official Gazette, make rules consistent with this Act for all or any of the following purposes, namely :--

APPENDIX IV-contd.

MISCELLANEOUS-contd.

Statement no. 9-contd.

- (a) for providing for the appointment of chairmen and members of Mining Boards, and for regulating the procedure of such Boards;
- (b) for providing for the appointment of courts of inquiry under section 21, for regulating the procedure and powers of such courts, for the payment of travelling allowance to the members, and for the recovery of the expenses of such courts from the manager, owner or agent of the mine concerned;
- (c) for prescribing the scale of latrine and urinal accommodation to be provided at mines, the provision to be made for the supply of drinking-water, the supply and maintenance of medical appliances and comforts, the formation and training of rescue brigades, and the training of men in ambulance work;
- (d) for defining the persons who shall, for the purposes of section 24, be deemed to be persons holding positions of supervision or management or employed in a contidential capacity;
- (c) for prohibiting the employment in mines of persons or any class of persons who have not been certified by a qualified medical practitioner to be more than thirteen years of age, and for prescribing the manner and the circumstances in which such certificates may be granted and revoked;
- (f) for prescribing the form of register required by section 28;
- (g) for prescribing abstracts of this Act and the vernacular in which the abstracts and the regulations, rules and bye-laws shall be posted as required by sections 32 and 33;
- (h) for requiring the fencing of any mine or part of a mine, whether the same is being worked or not, where such fencing is necessary for the protection of the public;
- (i) for the protection from injury, in respect of any mine when the workings are dis
 - continued, of property vested in His Majesty or any local authority or railway company as defined in the Indian Railways Act, 1890;
- (j) for requiring notices, returns and reports in connection with any matters dealt with by rules to be furnished by owners, agents and managers of mines, and for prescribing the forms of such notices, returns and reports, the persons and authorities to whom they are to be furnished, the particulars to be contained in them, and the times within which they are to be submitted; and
- (k) generally to provide for any matter not provided for by this Act or the regulations, provision for which is required in order to give effect to this Act.
- 31. (1) The power to make regulations and rules conferred by sections 29 and 30 is Prior publication of regulations and rules. Subject to the condition of the regulations and rules being made after previous publication.

(2) The date to be specified in accordance with clause (3) of section 23 of the General Clauses Act, 1897, as that after which a draft of regulations or rules proposed to be made will be taken under consideration, shall not be less than three months from the date on which the draft of the proposed regulations or rules is published for general information.

(3) Before the draft of any regulation or rule is published under this section it shall be referred in the case of a regulation to every Mining Board constituted in British India, and in the case of a rule to every Mining Board constituted in the province; and the regulation or rule shall not be so published until each such Board has had a reasonable opportunity of reporting as to the expediency of making the same and as to the suitability of its provisions.

(4) Regulations and rules shall be published in the Gazette of India and the local official Gazette, respectively, and, on such publication, shall have effect as if enacted in this Act.

32. (1) The owner, agent or manager of a mine may, and shall, if called upon to do so

Bye-laws. Bye-laws. Bye-laws. Bye-laws.

Bye-laws. submit to the Chief Inspector or Inspector a draft of such bye-laws, not being inconsistent with this Act or any regulations or rules for the time being in force, for the control and guidance of the persons acting in the management of, or employed in, the mine as such owner, agent or manager may deem necessary to prevent accidents and provide for the safety, convenience and discipline of the persons employed in the mine.

(2) If any such owner, agent or manager-

(a) fuils to submit within two months a draft of bye-laws after being called upon to do so by the Chief Inspector or Inspector, or

IX of 1890.

X of 1897.

MISCELLANEOUS—contd.

Statement no. 9-contd.

(b) submits a draft of bye-laws which is not in the opinion of the Chief Inspector or Inspector sufficient,

the Chief Inspector or Inspector may-

- (i) propose a draft of such bye-laws as appear to him to be sufficient, or
- (ii) propose such amendments in any draft submitted to him by the owner, agent or manager as will, in his opinion, render it sufficient,

and shall send such draft bye-laws or draft amendments to the owner, agent or manager, as the case may be, for consideration.

(3) If within a period of two months from the date on which any draft bye-laws.or draft amendments are sent by the Chief Inspector or Inspector to the owner, agent or manager under the provisions of sub-section (2), the Chief Inspector or Inspector and the owner, agent or manager are unable to agree as to the terms of the bye-laws to be made under sub-section (1), the Chief Inspector or Inspector shall refer the draft bye-laws for settlement to the Mining Board or, where there is no Mining Board, to such officer or authority as the Local Government may, by general or special order, appoint in this behalf.

(4) (a) When such draft bye-laws have been agreed to by the owner; agent or manager and the Chief Inspector or Inspector, or, when they are unable to agree, have been settled by the Mining Board or such officer or authority as aforesaid, a copy of the draft bye-laws shall be sent by the Chief Inspector or Inspector to the Local Government for approval.

(b) The Local Government may make such modifications of the draft bye-laws as it thinks fit.

(c) Before the Local Government approves the draft bye-laws, whether with or without modifications, there shall be published, in such manner as the Local Government may think best adapted for informing the persons affected, notice of the proposal to make the bye-laws and of the place where copies of the draft bye-laws may be obtained, and of the time (which shall not be less than thirty days) within which any objections with reference to the draft byelaws, made by or on behalf of persons affected, should be sent to the Local Government.

(d) Every objection shall be in writing and shall state-

(i) the specific grounds of objection and

(ii) the omissions, additions or modifications asked for.

(c) The Local Government shall consider any objection made within the required time by or on behalf of persons appearing to it to be affected, and may approve the bye-laws either in the form in which they were published or after making such amendments thereto as it thinks fit.

(5) The bye-laws, when so approved by the Local Government, shall have effect as if enacted in this Act, and the owner, agent or manager of the mine shall cause a copy of the byelaws, in English and in such vernacular or vernaculars as may be prescribed, to be posted up in some conspicuous place at or near the mine, where the bye-laws may be conveniently read or seen by the persons employed; and, as often as the same become defaced, obliterated or destroyed, shall cause them to be renewed with all reasonable despatch.

(6) The Local Government may, by order in writing, rescind, in whole or in part, any bye-law so made, and thereupon such bye-law shall cease to have effect accordingly.

33. There shall be kept posted up at or near every mine in English and in such vernacular

Posting up of extracts from Act, regulations, etc. and rules.

CHAPTER VIII.

Penalties and Procedure.

34. (1) Whoever obstructs the Chief Inspector, an Inspector or any person authorised

Obstruction.

under section 7 in the discharge of his duties under this Act, or refuses or wilfully neglects to afford

the In spector, an Inspector or such person any reisonable facility for making any entry, inspection, examination or inquiry authorised by or under this Act in relation to any mine, shall be punishable with imprisonment for a term which may extend to three months, or with fine which may extend to five hundred rupees, or with both.

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MISCELLANEOUS-contd.

Statement no. 9-contd.

(2) Whoever refuses to produce on the demand of the Chief Inspector or Inspector any registers or other documents kept in pursuance of this Act, or prevents or attempts to prevent or does anything which he has reason to believe to be likely to prevent, any person from appearing before or being examined by an inspecting officer acting in pursuance of his duties under this Act, shall be punishable with fine which may extend to three hundred rupees.

Falsification of records, etc. 35 Whoever-

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- (a) counterfeits, or knowingly makes a false statement in, any certificate, or any official copy of a certificate, granted under this Act, or
- (b) knowingly uses as true any such counterfeit or false certificate, or
- (c) makes or produces or uses any false declaration, statement or evidence knowing the same to be false, for the purpose of obtaining for himself or for any other person a certificate, or the renewal of a certificate, under this Act, or any employment in a mine, or
- (d) falsifies any plan or register or record the maintenance of which is required by or under this Act, or
- (e) makes, gives or delivers any plan, return, notice, record or report containing a statement, entry or detail which is not to the best of his knowledge or belief true,

shall be punishable with imprisonment for a term which may extend to three months, or with fine which may extend to five hundred rupees, or with both.

36. Any person who, without reasonable excuse the burden of proving which shall lie Upon him, omits to make or furnish in the presorihod form or menner or st or michin the pres-

Cribed form or manner or at or within the prescribed time any plan, return, notice, register, record or report required by or under this Act to be made or furnished shall be punishable with fine which may extend to two hundred rupees.

37. Whoever, save as permitted by section 25, contravenes any provision of this Act or of any regulation, rule or bye-law or of any order made thereunder prohibiting restriction

Contravention of provisions regarding employment of labour. or regulating the employment or presence of persons in or short a mine shall be pupichable with fine which may extend to five burgers

persons in or about a mine shall be punishable with fine which may extend to five hundred rupees.

38. Whoever, in contravention of the provisions of section 20, fails to give notice of any Notice of accidents. with fine which may extend to five hundred rupees, or, if the occurrence results in loss of life, hundred rupees, or, if the occurrence results in loss of life, hundred rupees, or, if the occurrence results in loss of life, hundred rupees, or, if the occurrence results in loss of life, hundred rupees, or if the occurrence results in loss of life, hundred rupees, or if the occurrence results in loss of life, hundred rupees, or if the occurrence results in loss of life, hundred rupees, or if the occurrence results in loss of life, hundred rupees, or if the occurrence results in loss of life,

be punishable with imprisonment which may extend to three months or with fine which may extend to five hundred rupees, or with both.

39. Whoever contravenes any provision of this Act or of any regulation, rule or bye-law or of any order made thereunder for the contraven-

Disobedience of orders. shall be punishable with fine which may extend to one thousand rupees, and, in the case of a continuing contravention, with a further fine which may extend to one hundred rupees for every day on which the offender is proved to have persisted in the contravention after the date of the first conviction.

40. (1) Notwithstanding anything hereinbefore contained, whoever contravenes any provision of this Act or of any regulation, rule

Contravention of law with dangerous results. or bye-law or of any order made thereunder,

shall be punishable, if such contravention results in loss of life, with imprisonment which may extend to one year, or with fine which may extend to two thousand rupees, or with both ; or, if such contravention results in serious bodily injury, with imprisonment which may extend to six months, or with fine which may extend to one thousand rupees, or with both ; or, if such contravention otherwise causes injury or danger to workers or other persons in or about the mine, with imprisonment which may extend to one month, or with fine which may extend to five hundred rupees, or with both.

(2) Where a person having been convicted under this section is again convicted thereunder, he shall be punishable with double the punishment provided by sub-section (1).

(3) Any Court imposing, or confirming in appeal, revision or otherwise, a sentence of fine passed under this section may, when passing judgment, order the whole or any part of

APPENDIX IV—contd.

MISCELLANEOUS-contd.

Statement no. 9-contd.

the fine recovered to be paid as compensation to the person injured, or, in the case of his death, to his legal representative :

Provided that, if the fine is imposed in a case which is subject to appeal, no such payment shall be made before the period allowed for presenting the appeal has elapsed, or, if an appeal has been presented, before the decision of the appeal.

41. No prosecution shall be instituted against any owner, agent or manager for any offence under this Act except at the instance of the Chief Prosecution of owner, agent or manager.

Inspector or of the District Magistrate or of an Inspector authorised in this behalf by general or special order in writing by the Chief Inspector.

42. No Court shall take cognizance of any offence under this Act unless complaint thereof has been made within six months of the date on

Limitation of prosecutions.

which the offence is alleged to have been committed. 43. No Court inferior to that of a Presidency Magistrate or Magistrate of the first class

shall try any offence under this Act which is Cognizance of offences. alleged to have been committed by any owner,

agent or manager of a mine or any offence which is by this Act made punishable with imprisonment.

44. (1) If the Court trying any case instituted at the instance of the Chief Inspector or of the District Magistrate or of an Inspector under Reference to Mining Board or Committee in

licu of prosecution in certain cases.

this Act is of opinion that the case is one which should, in lieu of a prosecution, be referred to a

Mining Board or a Committee, it may stay the criminal proceedings, and report the matter to the Local Government with a view to such reference being made.

(2) On receipt of a report under sub-section (1), the Local Government may refer the case to a Mining Board or a Committee, or may direct the Court to proceed with the trial.

CHAPTER IX.

Miscellaneous.

45. If any question arises as to whether any excavation or working is a mine within the meaning of this Act, the Local Government Decision of question whether a mine is under may decide the question, and a certificate signed this Act.

by a Secretary to the Local Government shall te conclusive on the point.

46. (1) The Governor General in Council may, by notification in the Gazette of India, exempt any local area or any mine or group or Power to exempt from operation of Act. class of mines or any part of a mine or any class of persons from the operation of all or any specified provisions of this Act :

Provided that no local area or mine or group or class of mines shall be exempted from the provisions of section 26 unless it is also exempted from the operation of all the other provisions of this Act.

(2) On the occurrence of any public emergency, the Local Government may, by an order in writing, confer any exemption which might be conferred by the Governor General in Council under sub-section (1). When such an order is made, a copy thereof shall forthwith be sent to the Governor General in Council.

47. The Governor General in Council and every Local Government may reverse or modify					
Power to alter or rescind orders.	any order passed under this Act by any authority subject to his or its control, as the case may be.				
Application of Act to Crown mines.	48. This Act shall apply to mines belonging to the Crown.				
49. No suit, prosecution or other legal proceeding whatever shall lie against any person					
Saving.	for anything which is in good faith done or intend- ed to be done under this Act.				
50. On and from the commencement of this Act, the enactments mentioned in the Schedule					

Repeals.

shall be repealed to the extent specified in the fourth column thereof.

APPENDIX IV—concld.

MISCELLANEOUS-concld.

Statement no. 9-concld.

THE SCHEDULE.

(See section 50.)

ENACTMENTS REPEALED.

Year.	No.	Short title.	Extent of repeal.
	VIII	The Indian Mines Act, 1901.	The whole.
1914	IV	The Decentralisation Act, 1914.	So much of the Schedule as relates to the Indian Mines Act, 1901.
- 99	x	The Repealing and Amending Act, 1914.	So much of the Second Schedule as relates to the Indian Mines Act, 1901.
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H. MONCRIEFF SMITH.

Secretary to the Government of India.

Statement no. 10.

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LAND ACQUISITION (MINES) ACT, 1885.

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

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

 - (f) A tracing showing the boundaries of, and the area over which, the acquired land extends.