

# INDIA MINES ACT, 1923

# ANNUAL REPORT

OF THE

# CHIEF INSPECTOR OF MINES IN HIDIA

FOR THE YEAR ENDING

31st DECEMBER 1941

(AERIDGED EDITION)

MWM

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# W. KIRBY, Esq., B.Sc., M. I. Min E., Chief Inspector of Mines in India,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA.

# DEPARTMENT OF LABOUR,

NEW DELIII.

Dated Dhanbad, the 13th June 1912.

SIR,

I have the honour to submit the report upon the inspection of mines in British India for the year ending 31st December 1941.

#### INTRODUCTION.

The Indian Mines Act, 1923, applies to British India only and not to the Indian States. For the complete figures of production of all minerals raised from excavations of all depths in British India and the Indian States reference may be made to the statements of the "Mineral Production of India" published annually in the "Records of the Geological Survey of India" and to the "Quinquennial Review of the Mineral Production of India" published every five years by the same Department. Detailed information of the mineral industries in Mysore—where the Kolar gold field is situated—and Hyderabad (Nizam's Dominions) is given in the annual reports of the Chief Inspector of Mines in those States.

#### SECTION III.—ACCIDENTS.

The causes of the fatal accidents have been classified as follows:

						No. of fatal accidents.	Percentage of total number of fatal accidents.
Misadventure				•		209	30:39
Fault of deceased .						14	5-38
Fault of fellow workmen						6	2:31
Fault of subordinate office	ials					21	8.03
Fault of management						7	2.69
Faulty material .	•	. •			٠.	3	1.15
			T	otal	•	260	100 00

I have analysed the serious accidents and find that out of the total of 1,533 persons seriously injured three were permanently and totally disabled; 27 were permanently partially disabled, and 1,593 were only temporarily disabled.

In addition, it was reported that 10,969 persons received minor injuries which necessitated the enforced absence from work for a period exceeding forty-eight hours.

Explosions and Ignitions of Fire-damp and Coal-dust.—There was one fatal accident and 2 serious accidents by ignitions of fire-damp.

Falls of roof and sides.—Falls of roof and sides caused 152 fatal accidents and 319 serious accidents. As compared with the figures under this head in the previous year the total number of accidents decreased from 506 to 471; the number of persons killed décreased from 198 to 191 and the number of persons seriously injured decreased from 371 to 332. In one case nine lives, in one case four lives, in one case three lives and in four cases two lives were lost in depillaring areas; also in one case six lives, in one case three and in three cases two lives were lost in galleries by falls of roof. The accidents by falls of sides include one in which three persons, two in which two persons were killed in depillaring areas; one in which four persons were killed in galleries; also in two cases three lives were lost in open workings.

In Shafts.—There were 12 fatal accidents and 34 serious accidents in shafts, as compared with 20 fatal accidents and 25 serious accidents in the previous year.

Suffocation by gases.—There was one fatal accident by suffocation by gases.

Explosives.—There were 12 fatal accidents and 27 serious accidents caused by explosives. In the previous year the figures were 7 and 26, respectively.

Irruption of water.—There was one fatal accident by irruption of water.

Haulage.—There were 38 fatal accidents and 314 serious accidents on haulage roads. The accidents due to haulage have been classified as follows:—

					Fatal.	Serious.	Total.
Haulage rope breaking		٠		•	2	1	3
Coupling chains and hooks breaking	g	•			2	2	4
Draw-bars breaking					••	••	••
Couplings becoming detached					5	2	7
Riding on sets (authorised) .					1	6	7
Riding on sets (unauthorised)	. •				2	5	7
Allowing tubs to run uncontrolled	•	٠.	•		5	8	13
While hand tramming tubs .	٠.	•	•	•	4	52	56
While guiding tubs on a curve	. •		•	•	. 2	16	18
Following derailment or re-railing	tubs	•	•	•	4	70	74
	Ca	rried	over	•	27	162	189

	Fata	l. Serious.	Total.
Brought forward	. 2	7 162	189
While coupling or un-coupling	. 1	39	1()
While resting on or loitering about haulage roa or trainming levels		5 16	21
Crushed against tubs, sides of roadways, doors, et	te. S	3 18	21
While spragging moving tube		. 11	14
Unclassified	. :	2 65	67
Total	. 35	314	353

I give below a table showing the fatal and serious accidents on haulage roads during the last five years:—

WG 11 1	<i>)</i> [		•						Fatal.	Serious.
1937	٠	٠	•					•	32	213
1938					•			•	40	257
1939	•	•		-	•		•	•	38	280
0101	٠		•		•	•		•	32	307
1941					•				38	314

It will be seen that there has been an increase both in fatal and serious accidents, as compared with the preceding year.

Although there was a decided reduction in the number of accidents due to the breaking of haulage ropes, the accidents due to the breaking of coupling chains and hooks increased. As already remarked in previous reports many of these accidents could be prevented by the use of suitable materials and by making thorough examinations in order to detect any indications of deterioration.

It is encouraging to note that there was no accident due to breaking of draw-bars and there was an appreciable decrease in the number of accidents due to couplings becoming detached, there being 7 in 1941, as compared with 11 in 1940.

There was a regrettable increase in the number of fatal accidents resulting from set riding, there being no fatal accident in 1940, as compared with 3 in 1941. Two out of the three fatal accidents and 5 out of the 11 serious accidents, under this heading, occurred due to unauthorised persons riding on sets. As already remarked in my annual report for last year most of these accidents could be avoided by stricter supervision on the part of officials. When unauthorised persons are discovered riding on sets, suitable action should be taken with a view to preventing a recurrence of this illegal riding.

There was an appreciable reduction in the number of accidents, both fatal and serious, resulting from tubs being allowed to run uncontrolled. It is hoped that a further reduction in this type of accident will be effected by a more extensive use of inter-locked stop blocks and runaway switches and by providing a sufficient number of suitable iron sprags on the loading lines.

There was a considerable increase in the number of accidents due to hand tramming. A large number of these accidents was caused by hand trammed tubs overtaking and injuring persons pushing tubs in front. These accidents could be avoided by greater care on the part of trammers and the more frequent use of suitable sprags.

There was an increase in the number of accidents from guiding tubs on curves, there being 12 in 1940 and 18 in 1941. As pointed out in previous reports if the tracks at curves are properly laid and fitted with check and guide rails, and a sufficient number of properly spaced pulleys are fixed on curves, this type of accident will be greatly minimised.

There were 74 accidents due to derailments or while re-railing tubs as against 64 in 1940. It will be seen that a large proportion of the serious haulage accidents is associated with derailments and many, if not most, of these are primarily due to the condition of the track. This type of accident could be greatly minimised by providing a well laid track with rails of a suitable section and keeping the haulage roads clean. If derailments do occur, suitable levers should be used for re-railing the tubs.

Forty accidents resulted while coupling or uncoupling tubs as against 33 in 1940. Persons engaged in coupling or uncoupling tubs are frequently injured, as a result of some part of their body being crushed between the tubs. Such accidents could be greatly minimised by taking care to perform the operation from a safe position and also by providing adequate buffers or "stops".

The number of accidents to persons while resting on or loitering about haulage roads and tramming levels increased from 20 to 21. A number of these accidents could have been prevented by stricter supervision on the part of the subordinate officials, and by precautions being taken to prevent persons wandering inadvertently on to haulage roads.

The accidents under the heading "Unclassified" increased from 42 in 1940 to 67 in 1941. Several serious accidents under this heading were caused at the time of cleaning haulage roads or friction rollers when the rope was in motion, and obviously this type of accident could be prevented by performing such work when the rope was not in motion.

Underground Machinery.—One fatal and 19 serious accidents were caused by underground machinery.

Sundries Underground.—Twenty-three fatal accidents and 421 serious accidents were due to miscellare ous causes underground.

Surface Machinery.—Two fatal accidents and 15 serious accidents were caused by surface machinery.

Surface Railways and Tramways.—Twelve fatal accidents and 181 serious accidents took place on surface Railways and Tramways.

Electricity.—There were two fatal accidents and one serious accident attributable to the use of electricity.

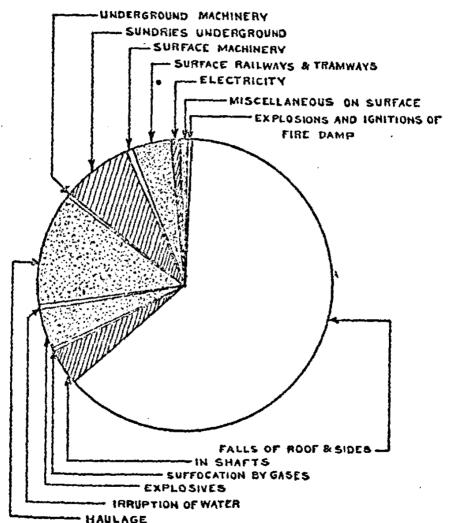
Miscellaneous on the surface.—Three fatal accidents and 124 serious accidents of this kind took place on the surface.

Accidents excluded from the statistics.—Twenty-nine accidents, causing 30 deaths, were excluded from the statistics for reasons which are given in Appendix II.

The accompanying chart shows the relative importance of the various ses of accidents in coal mines during 1941.

### CHART SHOWING

# DISTRIBUTION OF CAUSES OF PERSONS KILLED IN AND ABOUT COAL MINES IN THE YEAR 1941



A list of the fatal accidents appears in Appendix II, Table I, where each is briefly described. The details of certain accidents are reported at greater length as follows:—

#### FALL OF ROOF.

# No. 1. The Katras Jherriah Coal Company, Limited's Subpore Coal Mine.

This accident occurred in the Poniati seam, which is 16 feet thick and inclined at about 1 in 10, and is overlain by a bed of sandstone which varies from 30 to 50 feet in thickness.

Work had only been commenced, in the district where this accident happened, three weeks previously when the extraction of three pillars was undertaken.

The accident occurred at 2-45 p. m. just at the close of the first relay when the extraction of a "stook", 6'×6', was being completed. At about 12 noon a shot was fired in the lower part of the "stook" after which the miners and loaders resumed their normal work. Work proceeded normally until the time of accident, when a mass of sandstone, 40'×20'×4', tapering to practically nothing, and directly over the "stook" collapsed without any previous warning. The "stook" was crushed and three miners and a loader who were at work there were killed instantly. One loader was buried under the fall but was extricated alive, although seriously injured. There was no previous warning before the fall occurred and the place was adequately supported by props, but even if more props had been set they would not have prevented such a large mass of stone from falling. The sandstone which fell was "false bedded" and did not in reality form an integral part of the main body of sandstone forming the main roof. It would be impracticable to test the soundness or otherwise of such a large mass of stone.

As a precautionary measure against the recurrence of similar accidents it was suggested that "chocks" be set at intervals along the edges of goaves of considerable area, which had not broken down.

No. 30. The East Indian Coal Company, Limited's South Bulliary Coal Mine.

#### (Nine persons killed.)

This accident happened in No. 16 seam, 12 feet thick, but only the bottom 6'×7" was worked. Pillars of good dimensions had been formed and the system of extraction was to split the pillars into four parts and extract a quarter pillar at a time. The roof coal was supported on props during the extraction of pillars and then allowed to fall in the goaf. The goaf generally broke down regularly as the extraction of pillars proceeded. During the extraction of pillars props were set 5 feet apart and at closer intervals if considered necessary.

This accident occurred in a district which had been standing for more than three years prior to its re-opening at the end of January. Depillaring operations were resumed on the 8th February and 2½ pillars had been successfully extracted up to the time of the accident.

Towards the end of the night relay on the 3rd May, the assistant visited this depillaring area and found that conditions were normal and that miners were at work on the rise side of a "stook" which was about 15 feet in length and 4 feet in width. At the end of this relay it was proposed to suspend mining operations for the next 48 hours as the mine would be closed down for the week-end. The assistant considered that the "stook" had been reduced to the minimum consistent with safety, and in accordance with the recognised practice, the supports were withdrawn at the end of the relay. No work was done over the week-end, but on the following Monday morning, i. e., the day of occurrence, an overman inspected the place and as there had been no change in conditions he considered that it would be safe to extract the "stook" provided the supports were re-set. He gave instructions for the necessary props to be re-set and than left the district. It was stated that after 25 props had been re-set further extraction of the "stook" was

commenced, and eight tubs of coal had been loaded, when a large fall of roof coal and stone occurred, killing eight of the loaders and miners.

This fall exposed pronounced cleavage planes and "breaks". This inherent weakness in the roof could not have been detected in the course of statutory inspections and it was considered that if more props had been set the additional support would have been insufficient to prevent the fall of roof coal and stone which fell from the concealed "breaks" and "slips". It was clear to the assistant that undue risk might be taken if the "stook" was further reduced in view of the adjoining goaf not having broken down, and this accident must be attributed to an error of judgment on the part of the overman, who should not have had the supports re-set with the object of reducing the "stook" still further, after the assistant considered that the "stook" could not be further reduced consistent with safety.

It is considered that where large areas of roof coal are left standing, which might be rendered weak by the presence of concealed "slips" or "breaks", as at the place of accident, "checks" in addition to props should be set with the object of breaking off any fall of roof and preventing a fall extending to a working place.

#### FALL OF SIDE.

No. 146. Messrs. The Dhemo Main Collieries Limited's Dhemo Main Coal Mine.

(Four persons killed and one injured.)

The Dishergarh seam in which this accident took place is 12 to 15 feet thick and dips at 1 in  $5\frac{1}{2}$ . The workings were at a depth of 1,600 feet from the surface and the place of accident is indicated on the plan and section No.

The extraction of pillars was commenced in the section concerned during the year 1925 and has proceeded continuously since that time. Conditions were perfectly normal during the relay, 4 p.m. to 12 midnight, up to the time of the accident which occurred at 11-30 p.m. There were no indications of any roof "weight" or of impending falls in the goaves. Depillaring and the splitting of a few pillars was in progress on Nos. 21 East, 22 East, 23 East, 24 East and 24 West levels as indicated on the plan. The roof coal in the levels where this work was in progress had been taken down, and all the working levels were supported by timber cogs, 5'×5', and by numerous props. At the time of the occurrence the overman was at the in-bye end of No. 24 level East where some loaders were cleaning up coal preparatory to working on another pillar, and he remained there for about a quarter of an hour, when according to his statement :- " There was a severe 'bump', the floor shook and I was thrown over and my safety lamp extinguished. I had an electric torch and there were 5 or 6 loaders beside me who had electric safety lamps. We could not see for about 2-3 minutes as the was full of dust". The bump was so severe that manager who was asleep in his bungalow was wakened by what felt like an earth tremor. About 200 tons of coal burst off the side of the rise side of the pillar (A on plan) and the top of this pillar had parted from the roof. This pillar was exceptionally large, measuring 200 feet on the strike and 100 feet from rise to dip. It was also observed that a number of cogs which had been built approximately 12 feet apart on both sides of the level had been totally displaced. These cogs were constructed of round section timber 6" in diameter. The cogs out-bye of this area, however, were constructed of rectangular timber, 7"×4", and it was observed that these had not been displaced. The pillar (B on plan) measured 140 feet along the strike and 100 feet from rise to dip and the splitting of this pillar into four parts had been in progress during the previous relay, while the pillar on the rise side of the level (C on plan) also measured 200 feet on the strike and 100 feet from rise to dip. Very little coal had fallen off this pillar (C) but the coal from the dip side pillar had piled up against it. A tub had also been partly pushed on to the top of the coal. Coal had also fallen from the dip side of pillar D. It was also observed that at the entrance to No. 23 Level East a quantity of coal had burst off the side of the rise pillar (E on plan) and some roof coal had also fallen. The foregoing details will give some idea of the severity of these "bumps".

In my Annual Reports for the years 1939 and 1940 comment was made on the occurrence of "bumps" where depillaring is conducted at great depths and where there is a strong stratum, e.g., sandstone immediately above or within a few feet of the coal seam and precautionary measures were suggested to mitigate the effects of these "bumps".

In the case under reference the management agreed to set cogs 5 feet square, constructed of rectangular timber, not less than 7"×4" in cross section, on both sides of the roadways at intervals of not more than 9 feet and "staggered". It was also decided that two diagonal "faces" of extraction, forming a "V", should be avoided as such "faces" constitute a line of weakness. It was also proposed to stow solidly with sand all goaves as depillaring operations proceeded. The solid stowing of goaves will mitigate the effects of these serious occurrences.

# No. 121. The Indian Iron and Steel Company Limited's Jitpur Coal Mine.

### (One person killed.)

This accident took place in a depillaring area in No. 18 seam, which is about 12 feet thick, but the top 5 feet of coal is not worked.

Several miners were resting in a gallery adjoining a pillar under extraction, when a mass of coal fell from the side and struck one of the miners, inflicting fatal injuries. It is likely that this fall of side was caused by "weighting" from the adjoining goaf. Attention is drawn to this accident with a view to steps being taken to prevent workers resting in the vicinity of goafing operations, and it is considered that they should not be permitted to rest within a distance of two pillars of pillars under extraction.

#### By Explosives.

No. 172. Messrs. K. B. Seal & Sons' Kalithan Jinagora Coal Mine.

# (One person killed.)

This accident occurred in a quarry,  $300' \times 120' \times 55'$  deep, during blasting operations.

Before blasting in the overburden of a quarry four flags were hoisted on two sides of the quarry and after giving the usual warning eleven shots were fired. On returning to the quarry the shotfirer discovered that a piece of stone had been projected for a distance of 375 feet and struck a miner, inflicting fatal injuries. It appeared that some of the work-persons had not been removed sufficiently far from blasting operations and in order to avoid accidents of this nature all work-persons should be removed to a distance of not less than 800 feet from place of blasting.

No. 174. Messrs. Chatturam Horitram Limited's Sugar Mica Mine.

#### (One person killed.)

Five gelignite shots were being fired with fuses in an underground level and four of the fuses were lighted, but it appears that the fifth fuse was damp and the shotfirer had great difficulty in igniting it. He delayed so long in lighting this fuse that on attempting to retreat to a place of safety he had only gone about 10 feet when some of the shots exploded and he sustained fatal injuries.

This accident clearly indicates the desirability of using fuse in good condition and the use of damp fuse should be prohibited. The length of the fuses should also be properly proportioned, so that when firing a number of shots at a time, the length of fuse is such that the shots explode at fairly regular intervals, and the shotfirer has not only ample time to reach a place of safety but missires can be readily detected.

#### Haulage.

No. 205. The Burrakur Coal Compony Limited's Mudidih Coal Minc.

#### (One person killed.)

This accident occurred near the curve of a tramming level,  $7\frac{1}{2}$  wide and 6' high, with a gradient of about 1 in 100 in favour of the load.

A set of ten loaded tubs was being brought out by three trammers when the buffers of the first two tubs got inter-locked. One of the trammers went to push the front tub, and while the other two were trying to push the second tub with their back more tubs from the rear bumped into these tubs, causing them to overturn. One of the trammers was caught by the second tub and killed instantly. If sprags had been applied to the rear tubs to prevent them from running into the front tubs with inter-locked buffers the accident would have been avoided. Furthermore, suitable levers, which could have been used for separating the tubs, were available some distance away from the site of the accident.

A number of accidents of this nature has occurred during the year. By insisting on the use of the necessary appliances this type of accident would be avoided, e.g., by using suitable levers for releasing tubs which have become interlocked or for re-railing tubs, the danger of persons being crushed between tubs or of tubs turning over on to them is eliminated.

# SECTION IV.—PROSECUTIONS AND AMENDMENTS TO THE ACT, REGULATIONS, RULES AND ORDERS MADE THEREUNDER.

#### (PROSECUTIONS.)

During the year judgments in prosecutions were delivered as follows :-

The owner of a coal mine in the Jharia coalfield was prosecuted for (1) permitting extensive pillar robbing underground, and driving galleries of excessive width; (2) for failing to secure the roof at a number of working places underground; (3) plans of the mine were not available; and (1) dangerous places in the workings of a seam were not kept fenced off. He was fined Rs. 200.

The two owners and manager of a coal mine in the Raniganj coalfield were prosecuted (1) for permitting three women to be employed underground;

(2) for failing to appoint a competent person to maintain a correct record of the number of persons proceeding underground and returning therefrom daily; and (3) for failing to arrange for a person in authority to be present while persons were at work underground. One of the owners was fined Rs. 200, and the other owner and manager Rs. 50 each.

The head fitter of a coal mine in the Jharia coalfield was prosecuted for failing to keep the brake of a winding engine in working order, thereby resulting in a serious accident. He was acquitted.

The owner of a coal mine in the Jharia coalfield was prosecuted for continuing to work a mine without a qualified manager. He was fined Rs. 25.

The owner of a stone mine in the Manbhum district was prosecuted for permitting female workers to be employed underground. He was fined Rs. 100.

The owner and the manager of a coal mine in the Pench Valley coalfield were prosecuted (1) for permitting a miner to work underground for more than nine hours on a particular day and also during hours when he ought not to have been working, according to the register maintained in accordance with the prescribed regulations; (2) for failing to make and keep secure the sides of the cuttings of two inclines; and (3) for failing to keep the tops of the inclines in the mine properly fenced. The owner was fined Rs. 150 and the manager Rs. 50.

The owner, manager, overman and attendance clerk of a coal mine in the Raniganj coalfield were prosecuted (1) for permitting miners to remain underground long after the end of their relay; and (2) for failing to maintain a correct record of persons at work in the mine in the prescribed register. The case is pending.

The owner and the manager of a coal mine in the Raniganj coalfield were prosecuted (1) for permitting pillars which were already of smaller dimensions than required by the regulations, to be still further reduced; (2) for permitting the width of galleries to exceed the width specified in the regulations; and (3) for failing to provide an efficient brake on the drum of a winding engine. The case is pending.

The owner and the manager of a coal mine in the Raniganj coalfield were prosecuted (1) for permitting workings to be made smaller than the specified dimensions; (2) for permitting the reduction of pillars which were already of smaller dimensions than specified in the regulations; and (3) for permitting galleries whose dimensions already exceeded those specified in the regulations to be further increased. They were fined Rs. 50 each.

The agent and the manager of a coal mine in the Jharia coalfield were prosecuted for submitting an incorrect return of coal raised during a particular month. The manager was fined Rs. 50, while the case against the agent is pending.

The three owners and manager of a coal mine in the Raniganj coalfield were prosecuted for permitting the employment of ten women underground and for failing to arrange for a person in authority to be present while persons were employed underground. The above persons and an attendance clerk were also charged with failing to keep a correct record of the number of persons employed underground, while the attendance clerk was further charged with absenting himself from duty without permission and without having been relieved by a responsible person. One owner, the manager and attendance clerk were fined Rs. 30 each, while the case against the other two owners was withdrawn.

The two owners of a mica mine in the Manbhum district were prosecuted (1) for failing to inform the Inspector of Mines of the occurrence of a serious accident at the mine and failing to send notice thereof to the Sub-Divisional Magistrate; (2) for failing to submit a notice of re-opening of a mine within a month of the date of re-opening; and (3) for failing to appoint a person as manager of the mine. They were fined Rs. 125 each.

The two owners of a coal mine in the Jharia coalfield were prosecuted for failing to lence an incline opening. They were fined Rs. 50 each.

The two owners of a coal mine in the Raniganj coalfield were prosecuted (1) for permitting the further reduction of pillars whose dimensions were already less than those prescribed in the regulations; (2) for permitting the width of galleries to exceed the figure specified in the regulations; and (3) for working the mine without a duly qualified manager. One of the owners was fined Rs. 60, while proceedings against the other had to be dropped owing to his death.

The owner, agent and manager of a coal mine in the Jharia coalfield were prosecuted in that (1) a number of galleries were made as much as 20 feet in width and 15 to 18 feet in height without the previous written permission of the Inspector of Mines having been obtained; and (2) pillars whose dimensions were already less than those specified in the regulations were further reduced. They were fined Rs. 40 each.

The owner of a coal mine in the Raniganj coalfield was prosecuted in that (1) the mine was worked without a duly qualified manager; (2) the soft overburden in the open workings was not removed far enough from the edge or otherwise made secure in such a manner as to prevent danger to persons employed in the mine; (3) the daily inspection of mine workings was not being made by a competent person and the result of such an inspection was not recorded in a book kept at the mine for that purpose; and (4) the register of persons employed in the mine was not maintained in the prescribed form. He was fined Rs. 30.

The owner of a coal mine in the Raniganj coalfield was prosecuted for failing to submit an annual return to the Chief Inspector of Mines in India. He was fined Rs. 20.

The two owners of a coal mine in the Raniganj coalfield were prosecuted for working a mine without a duly qualified manager. The case was withdrawn as a qualified manager, was appointed subsequently.

The manager and foreman of a manganese mine in the Central Provinces were prosecuted, for failing to keep the sides, of an open working sloped stepped or secured in such a manner as to prevent danger, from falls of material, with the result that three persons were killed. They were fined Rs, 300 each.

The two owners of a coal mine in the Jharia coalfield were prosecuted in that adequate protection against an irruption of flood water from a, "jore" was not provided. They were fined Rs. 50 each.

The managing contractor and the manager of a coal mine in the Ranigan; coalfield were prosecuted (1) for failing to have the cage chains annealed and the winding ropes re-capped during the previous six months; (2) for failing to provide an adequate stationary light at the bottem of a shaft; and (3) for failing to obtain the permission of the Chief Inspector of Mines in India to work the seam, in mose than one section. They were fined Rs. 15 each.

The agent and the manager of a coal mine in the Jharia coalfield were prosecuted in that (1) two women were found in the underground workings of a mine;

(2) the pillars between two underground levels were formed on centres smaller than those specified in the regulations; (3) several disused inclines and a quarry were not kept properly fenced; (4) a correct record of the number of persons proceeding underground and returning therefrom was not kept; (5) the attendance registers were not kept at the entrance of the mine. The sirdar and attendance clerk were charged with absenting themselves from duty without having been relieved by authorised substitutes. The agent and the manager were fined Rs. 50 each, while the sirdar and attendance clerk were fined Rs. 10 and Rs. 35, respectively.

The owner of a steatite mine in the Jubbulpore district was prosecuted for failing to submit an annual return to the Chief Inspector of Mines in India. He was fined Rs. 10.

The owner and the manager of a mica mine in the Hazaribagh district were presecuted for failing to keep the sides of an open working sloped, stepped or secured in such a manner as to prevent danger from falls of material. The owner was fined Rs. 200 while the manager was sentenced to rigorous imprisonment for three months.

The two owners and a manager of a coal mine in the Raniganj coalfield were prosecuted (1) for permitting galleries more than 10 feet in height to be driven between two underground levels; (2) for failing to maintain the runaway switch on an underground haulage road in working order; and (3) for failing to ensure that an adequate amount of ventilation was constantly produced in the dip workings of the mine. The case against one of the owners was withdrawn, while the other owner and the manager were fined Rs. 20 each.

The two owners and a manager of a coal mine in the Raniganj coalfield were prosecuted (1) for failing to provide a cage with suitable gates or other rigid fences; (2) for allowing a seam to be worked in more than one section without the written permission of the Chief Inspector of Mines in India; (3) for allowing the "parting" between two sections of a seam to be less than 10 feet without the written permission of the Inspector of Mines; and (4) for failing to keep the entrances to disused galleries fenced. The owners were acquitted, and the manager fined Rs. 50.

The owner of a stone mine in the Jhansi district was prosecuted for failing to submit an annual return to the Chief Inspector of Mines in India. The case was withdrawn.

The manager of a coal mine in the Jharia coalfield was prosecuted in that (I the underground workings of a mine were irregularly formed and at a number of places pillars were smaller and galleries higher than specified in the regulations (2) the kep beams on top of two shafts were of wood but were not covered with non-inflammable material so as to eliminate the risk of fire. The manager and the surveyor were charged with failing to maintain accurate and up-to-date plans of the workings as required by the regulations. The manager was fined Rs. 70, and the surveyor was acquitted.

The two owners of a coal mine in Baluchistan were prosecuted for continuin to work a mine without a duly qualified manager. They were fined Rs. 50 each.

The owner of a coal mine in the Jharia coalfield was prosecuted (1) for working a mine without a qualified manager; (2) for failing to have the working at ventilation plans of a seam brought up-to-date within the previous six mention and (3) for failing to keep an incline adequately fenced. The case is pending.

The manager and the surveyor of a coal mine in the Jharia coalfield ware prosecuted in that an accurate and up-to-date plan of the workings of a seam and an up-to-date surface plan were not maintained. The case is pending.

The two owners of a mica mine in the Monghyr district were prosecuted for failing to submit an annual return to the Chief Inspector of Mines in India. The case is pending.

The manager and two sirdars of a coal mine in the Jharia coalfield were prosecuted in that (1) the roof in a depillaring area was not made and kept secure and miners were found standing in a goaf where there was not a single prop set to support the roof; (2) a shotfirer was not appointed in writing by the manager and shots were fired by unauthorised persons; and (3) the goaf edges were not kept fenced. The case is pending.

The owner and the manager of a mica mine in Rajputana were prosecuted in that (1) a boy of sixteen years of age was employed underground without having obtained a certificate of fitness from a qualified medical practitioner; (2) a record of the number of shots fired, the quantity of explosives used and the number of shots which had missifired was not maintained. A shotfirer was also charged with handing over loose gunpowder to an unauthorised person who carried it to his working place where it became ignited by an oil lamp, causing the death of two persons and serious injuries to two others. The case is pending.

The owner of a coal mine in the Jharia coalfield was prosecuted for working a mine without a properly qualified manager; (2) for failing to maintain accurate and up-to-date plans; and (3) for permitting galleries to be driven to a greater width than specified in the regulations. The case is pending.

The manager and shotfirer of a mica mine in Rajputana were prosecuted in that (1) a record of the number of shots fired, the quantity of explosive used and the number of shots which had missfired was not maintained; and (2) a careful search for a missfired shot was not made with the result that a fatal accident occurred. The case is pending.

The two owners of a coal mine in the Jharia coalfield were prosecuted for continuing to work a mine without a duly qualified manager. The case is pending.

The managing director and the manager of a mica mine in the Hazaribagh district were prosecuted for permitting three women to be employed underground. They were fined Rs. 25 each.

The six owners of a coal mine in the Jharia coalfield were prosecuted for continuing to work a mine without a duly qualified manager. Four owners were fined Rs. 15 each, while proceedings against the other two were dropped as they could not be traced.

The owner of a coal mine in the Raniganj coalfield was prosecuted for failing to submit to the Chief Inspector of Mines in India, an accurate plan of the workings of the mine up to the time of its discontinuance. The case was withdrawn as the owner agreed to submit the required plan.

The owner and the manager of a coal mine in the Jharia coalfield were prosecuted for not maintaining the workings under and in the vicinity of a district board road in a secure condition. The case was withdrawn as the defect was remedied.

The owner of a coal mine in the Tharia coalfield was prosecuted for failing to submit to the Chief Inspector of Mines in India a copy of the plan showing the workings of the mine within the prescribed period. The case is pending.

Information was received of the following prosecutions instituted by mine officials against subordinate staff and workmen:—

A coal-cutter in the Pench Valley coalfield was prosecuted for cutting coal from pillars in a prohibited area. He was fined Rs. 15.

A shotfirer of a coal mine in the Pench Valley coalfield was prosecuted for banding over cartridges and gunpowder to unauthorised persons. He was fined Rs. 15.

Two coal-cutters in the Pench Valley coalfield were prosecuted for firing shots in the absence of the shotfirer. They were fined Rs. 5 each.

A shotfirer and two coal-cutters in the Pench Valley coalfield were prosecuted for driving a gallery beyond the prescribed limit. The shotfirer was fined Rs. 15 and the two miners Rs. 5 each.

Two underground trammers of a coal mine in the Pench Valley coalfield were prosecuted for riding on a loaded set of tubs. They were fined Rs. 5 each.

A coal-cutter in the Pench Valley coalfield was prosecuted for entering a gallery which had been fenced off by an authorised shotfirer, as it contained two unexploded shots. He further re-lighted the fuse of one of the shots which exploded, causing slight injury to himself. He was fined Rs. 2.

Three miners of a coal mine in Assam were prosecuted for cutting coal from pillars in a prohibited area. They were fined Rs. 10 each.

An overman of a coal mine in the Pench Valley coalfield was prosecuted for riding on tubs underground, without permission. He was acquitted owing to insufficient evidence against him.

A sirdar of a coal mine in the Pench Valley coalfield was prosecuted for engaging a person below the prescribed age to work in the mine. He was fined Rs. 5.

An underground trolleyman of a coal mine in the Jharia coalfield was prosecuted for riding on a set of tubs without permission, as a result of which he was seriously injured. He was fined Rs. 15.

A shotfirer and an assistant shotfirer of a coal mine in the Pench Valley coal-field were prosecuted for the violation of Regulations 108 and 10°, which resulted in a serious accident. The shotfirer was acquitted and the assistant shotfirer was fined Rs. 5.

A coal-cutter in the Jharia coalfield was prosecuted for assaulting the assistant manager of the miné. Proceedings were dropped as the accused could not be traced.

A shotfirer of a coal mine in the Hingir-Rampur coal leld was prosecuted to absenting himself from duty without leave for one night. He was sentenced imprisonment for three days.

A shotf-rer of a coal mine in the Hingir-Rampur coalfield was prosecuted for absenting himself from duty without leave for five days. He was sentenced imprisonment for six days.

Soven trolleymen and a munshi of a coal mine in the Jharia coalfield we prosecuted for assaulting an overman. They were fined Rs. 40 each on the complaint of the overman and Rs. 30 each in the case instituted by the management.

AMENDMENTS TO THE INDIAN MINES ACT AND TO THE REGULATIONS, RUL AND BYE-LAWS MADE UNDER THE ACT.

In Notification No. M-1051, dated the 2nd June 1941, the Central Government directed that certain amendments shall be made in the notification of

Government of India, in the Department of Labour. No. M-1051, dated the 10th January 1938. The notification is reproduced in Appendix IV, Statement No. 3.

In Notification No. M-1270, dated the 28th August 1941, the Central Government directed that further amendment shall be made in the Coal Mines Rescue Rules, 1939. The notification is reproduced in Appendix IV, Statement No. 4.

In Notification No. M-76, dated the 3rd October 1941, the Central Government directed that further amendments shall be made in the Indian Coal Mines Regulations, 1926. The notification is reproduced in Appendix IV, Statement No. 5.

In Notification No. M-1055, dated the 7th October 1941, the Central Government directed that further amendments shall be made in the Indian Coal Mines Regulations, 1926. The notification is reproduced in Appendix IV, Statement No. 6.

In Notification No. M-1055 (1), dated the 27th October 1941, the Central Government directed that further amendments shall be made in the Indian Coal Mines Regulations, 1926. The notification is reproduced in Appendix IV, Statement No. 7.

In Notification No. M-955, dated the 6th November 1941, the Central Government directed that further amendments shall be made in the Indian Coal Mines Regulations, 1926. The notification is reproduced in Appendix IV, Statement No. 8.

In Notification No. M-1278, dated the 3rd December 1941, the Central Government in pursuance of sub-rule (2) of rule 1 of the Coal Mines Rescue Rules, 1939, fixed the 10th December 1941, as the date on which rules 28 to 55 of the said rules shall come into force.

Bye-laws were not established in any mine during 1941. Amended Bye-law No. 25 was established in one hundred and twenty-nine coal mines.

During the year five circular letters were issued to the owners, agents and managers of coal mines and one to the owners, agents and managers of both coal mines and mines other than coal. They are reproduced in Appendix IV, Statement Nos. 9 to 14.

The following notification relating to the Coal Mines Safety (Stowing) Act was

issued during the year :-

In Notification No. M-955, dated the 1st March 1941, the Central Government directed that an amendment shall be made in the Coal Mines Safety (Stowing) Rules, 1939. The notification is reproduced in Appendix IV, Statement No. 15.

### SECTION V.—GENERAL REMARKS.

# ISOLATION OF DEPILLARING AREAS IN MINES.

In accordance with Section 19 (1-A) (a) of the Indian Mines Act, 1923, the extraction or reduction of pillars may be prohibited by the Chief Inspector or an Inspector if, in his opinion, adequate provision has not been made against the outbreak of fire by providing for the sealing off and isolation of the part of the m ne in which depillaring operations are contemplated and for restricting the area that might be affected by a fire. Only in a comparatively few cases it is necessary to issue orders requiring these precautionary measures to be adopted, because it is becoming more evident to the managements of mines that as pillar extraction increases most seams are liable to spontaneous heating under certain conditions.

Sometimes the argument is advanced that because there has been no spontaneous heating during depillaring operations for many years that it is not likely to occur. This theory is untenable as underground conditions, where depillaring operations are in progress, and which influence spontaneous heating, are continually changing, e.g., the amount of "cover", conditions of vent lation and the percentage of extraction, etc. Experience has shown that in the Jharia coalfield all scams from No. 10 scam upwards will fire spontaneously if favourable conditions exist.

In many old mines no "panels" have been left and it is necessary to seal off the proposed depillaring areas with stoppings in which "vent holes" are left for the release of pressure in the event of an air blast. The question sometimes arises as to when these isolation stoppings should be built. They should be erected before pillar extraction is commenced, because spontaneous combustion is not only caused by heating in the goaves resulting from the extraction of pillars, which may mean an incubation period of six to twelve months, but heating may be the result of the crushing of pillars while depillaring, and cases are on record where depillaring areas have been sealed off in a few months due to crush. Therefore the stage when the isolation stoppings are built is important, as, if the construction is delayed until depillaring operations have commenced, it may be too late to seal effectively an area, particularly in a thick seam.

#### PROTECTIVE EQUIPMENT.

I am pleased to report the extended use of "bamboo safety hats" particularly in depillaring areas. In Jharia coalfield alone 32,541 of these hats were worn during the year, and a number of cases are on record where they have been the means of preventing serious accidents. Small pieces of roof stone or coal falling from heights as much as 20 feet and more have inflicted fatal injuries on workers, whose heads have been unprotected, but by the use of these safety hats a number of accidents of this nature have been avoided. Many mines in the major coalfields of Jharia and Raniganj have introduced these hats during the year and there appears no reason why they should not be used wherever practicable, as they are cheap and it does not require much effort by the managements to persuade the workers to wear these hats, particularly when the benefits to be derived from their use have been explained.

#### HEALTH AND SANITATION.

The Asansol Mines Board of Health held eleven ordinary and three special meetings during the year. The general health of the population continued to be satisfactory. The birth-rate, which fell to 28.3 per 1,000 in 1940 rose to 30.4 per The decline in the infant mortality rate was maintained during the 1,000 in 1941. year. From a mortality rate of 137.2 per 1,000 in 1938 it came down gradually to 105.5 per 1,000 in the year under review. The death rate was 19.4 per 1,000, as against 17.8 per 1,000 in 1940, and 21.4 per 1,000 in 1939. The mining population enjoyed a better standard of health than the general population. monthly mortality rate among the resident colliery population was at a much lower level than that of the general population. The sickness rate among colliery employees and their families, compiled from monthly dispensary returns, touched the lowest level in February, being 8.3 per cent., and it rose to 22.4 per cent. in July, due to an outbreak of malaria, gradually declining to 9.9 per cent. in December. A survey was made of the existing medical facilities in the collieries in order to bring them up to the standard laid down in the bye-laws.

Cholera showed the characteristic double rise which is evident in the Mining lettlement—one of mild intensity during March and April, generally associated with non-agglutinable vibrios followed, after a period of quiescence, by a more teneralised prevalence during the rainy season from July to September. Out of 575 cases, 269 were reported from collieries, 378 from villages and 28 from the nunicipal areas. 62,186 persons were inoculated, of whom 30,083 were from collieries. Protection of water supply and control of all surface water were strictly enforced under the epidemic bye-laws in addition to the usual protective measures regarding isolation of cases, quarantine of contacts and general surveillance to ensure timely notification.

Owing to mass re-vaccination carried out from year to year small-pox did not take a heavy toll. Out of 397 cases only 48 were reported from collieries. Timely protection by re-vaccination has come to be regarded as a routine measure in the majority of collieries. Altogether 85,722 persons were vaccinated during the year. Re-vaccination was made compulsory under the epidemic Bye-laws in areas declared to be infected.

An additional Maternity and Infant Welfare centre was opened during the latter part of the year. This brings the total of welfare centres to 13, serving an approximate population of 140,000 in 45 collieries, 55 villages and one town. 2,816 confinements were supervised by the staff of the welfare centres out of a total of 10,683 births in the Mining Settlement. Thirty-nine new duis were trained, while 136 trained dais attended the re-training course. Out of 88 dais examined by a Board of Examiners, 77 passed, 24 with honours entitling them to a 3-years' certificate for practice.

The leprosy work was financed, partly by the Board of Health and partly by the local Leprosy Relief Association. Out of a total of 5,817 surveyed cases, 2,850 were registered for treatment in the thirteen leprosy clinics. At the end of the year 98 were discharged cured and 169 became symptom-free as a result of treatment. The total number of leprosy cases discharged as cured since the opening of the clinics is 739. 66 cases were admitted for treatment of complications in the Leper hospital.

Anti-malar'a work was carried out in the areas which are known to be endemic or show a tendency towards endemicity. Three endemic areas have become almost malar'a free as a result of the campaign during the last few years. The seasonal rise in malaria was noticed in an intensified form in several localities in the months of July, August and September. Anti-malaria measures were extended to include these localities. The campaign consisted of a preliminary survey, spraying of breeding places with larvecide, cleaning up and draining out of surface waters and spray killing of adult mosquitoes.

The Health and Baby Week was arranged during the first quarter of the year in thirteen places in the Mining Settlement. The week's programme included Health Exhibition, a Baby Show and also competitions in first-aid, home-nursing and mothercraft. Inter colliery Ambulance competitions were held with a view to stimulate training in first-aid and ambulance among colliery employees. Nineteen teams entered for the senior competition held for holders of St. John Ambulance Certificate. Out of 30 junior teams, consisting of trainees not entitled to a certificate, 9 were miners and 21 non-miners.

During the year, the Jharia Mines Board of Health held eleven ordinary and seven special meetings and two joint meetings with the Jharia Water Board. The population of the Settlement during the year was 561,487. The death rate was 14'20 per 1,000, as compared with 13'85 in the previous year. There was,

however, a marked decline in the infant mortality rate from 92.6 in 1940 to 78:35 in 1941. The standard of health among the colliery population was at a higher level than that of the general population. The death rate among the colliery population was 8:09 during the year, as against 6:98 in 1940, and though this shows an appreciable increase in the rate, it is much below the death rate of the general population quoted above. The sickness rate among the colliery population was 6:16 per cent. in February; the healthlest month of the year, and 11:41 per cent. in August. There was a slight decrease in the birth rate from 21:58 per 1,000 in 1940 to 24:48 per 1,000 in 1941.

Cholera appeared in an epidemic form in April 1941 and continued till October. There was a higher level of incidence between May and September compared to the remaining months of the year. Out of 1,053 cases, 163 were reported from collieres 52 from the Dhanbad Municipality and the remainder from the rural areas. Preventive measures adopted by the Board consisted of mass inoculation, phage administration and disinfection of water supplies. In all, 30,565 people were inoculated, of whom 5,897 were from collieries and 24,668 from rural areas. Small-pox too appeared in an epidemic form in a number of places during the year. Out of 1,604 cases 736 were reported from collieries, 192 from the Dhanbad Municipality and the remainder from the rural areas of the Mining Settlement. Mass re-vaccination was resorted to throughout the Mining Settlement, the number of operations performed being 55,921, out of which 40,085 were re-vaccinations.

The Maternity and Child Welfare work under the Jharia Mines Board of Health was carried on by eleven centres during the greater part of the year.

During the year, the Board appointed a Housing Sub-Committee to examine the practicability of revision of housing arrangements on collieries on the lines of the recommendations of the Bihar Labour Enquiry Committee.

The Anti-Malaria scheme of the Board for conducting a survey and giving technical advice to the collieries for remedial measures continued during the year.

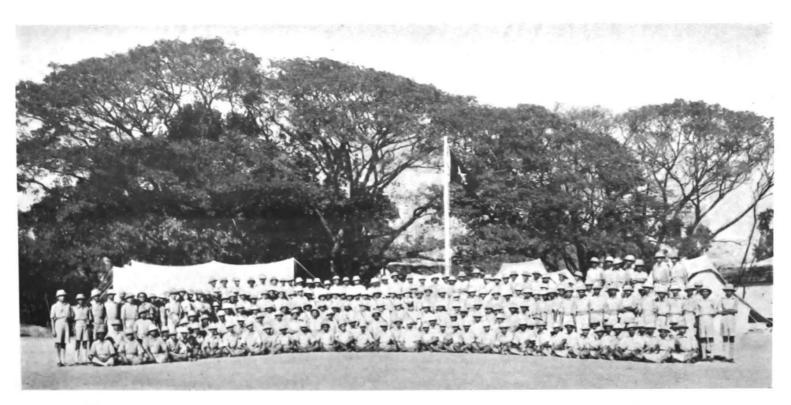
All leprosy work in the Mining Settlement continued to be managed during the year by the Dhanbad and District Leprosy Relief Fund, the total number of cases treated being 651.

The Jharia Water Board continued to function throughout the year. The total quantity of water supplied during the year was about 555 million gallons (including 21 million gallons of pit water from Kustore colliery) as per details given below:—

`				*							Gallons.
1. Collieries		•	•								459,170,000
2. Non-colliery	premi	es (d	omest	ic and	non-	domes	tio su	ipply)			38,325,000
3. Bazars of through st	Jharia, and po	, Ka	tras,	Kirke	nd a	nd ot	her p	laces	supp	lied	58,035,000
								Tol	lal	•	555,530,000

INSPECTIONS MADE BY MEDICAL OFFICERS AS Ex-Officio INSPECTORS OF MINES.

During the year many reports were received from provincial and district Medical Officers of Health concerning health and sanitation. All the reports were dealt with and most of the recommendations were carried out.



Members of the Dhanbad Jharia Coalfield Centre of the St. John Ambulance Brigade at camp.

#### STATISTICS OF RAINFALL

Statistics of rainfall in the eastern coalfields have been recorded as follows:

<b>35</b> 44. –						
					Rainfall in	inches. 1940.
Thacle	Coalfield-	•			2011	1970
J	ealgora				57-02 '	45-90 44-24
	opehanchi				An. na	44.54
	an) Coalfield—			get by s	or ,	
	annol ,				63-19	49-44
I	ishergarh	A Street	Barry Spirit Spirit	ga Kay	58.99	54'48
Giridil	Coalfieki-	The state of	e jaka e			
	iridih 🧳 💁 🐪				75.50	62·91

Arising out of the scanty rainfall during the rainy season of 1940, the water level at Topchanchi became dangerously low and the Board was compelled to adopt measures for preventing waste and to augment the supply by pumping pit water from Kustore colliery. The unexpected downpour of rain during the second weak of October increased the quantity of water in the Topchanchi lake by 300 million gallons, and as the supply of water was then considered adequate pumping from Kustore was stopped.

# AMBULANCE WORK.

The activities of the Dhanbad-Iharia Coalfield centre of the St. John Ambulance Association during the year were mostly directed towards training in first-aid to the injured and towards arranging first-aid posts or first-aid squads at all collieries in the Jharia coalfield to deal with air-raid casualties. In addition to the organisation and training of eight divisions of the St. John Ambulance Brigade, which were formed in 1940, the Association assisted in the formation of four new divisions.

The Mack Shield competition in first-sid open to teams from collieries in the Jharia coalfield was won by Ena colliery of the North-West Coal Company, Limited. This shield was presented by Mr. A. Mack, Assistant Superintendent of Messrs. Tata Iron and Steel Company, Limited's collieries.

The Farquhar Shield presented by Mr. A. Farquhar, Superintendent of Messrs. Tata Iron and Steel Company, Limited's collieries was competed for at Dhanbad on 26th January and was won by the Jamadoba Colliery of Messrs. Tata Iron and Steel Company, Limited.

Lectures in first-aid were delivered at fifteen centres in the Jharia coalfield and seven centres in the Dhanbad and Jharia Civil areas. During the year 521 persons appeared for examination in first-aid of whom 415 were successful. The table given below shows the number of persons examined and certificates awarded during the last five years:

	Yea	Xe		No.	No.
1937				380 😳	262
1936			Fig. To a	. ~ 313 · · ·	255
				396	316
				429	334
1941				£91	418

The growing importance of this centre is indicated by the number of cand dates examined and the number of certificates awarded during the year.

A camp exercise of the Dhanbad-Jharia Coalfield centre of the St. John Ambulance Brigade was held at Dhanbad from the 22nd to 25th February when five District Officers and 125 Divisional Officers and members attended. A photograph of the brigade members in camp is reproduced.

In the Raniganj coalfield classes in first-aid were held at eleven centres. Two hundred and forty-four students attended these classes and 197 passed and received certificates, as compared with 329 and 265, respectively, in the previous year. The following shields were competed for during the year:—

- (1) Senior Inter-Colliery Competition (St. John Ambulance Shield).—Winners:— Seetalpur Colliery (Messrs. Bengal Coal Company, Limited).
- (2) Junior Inter-Colliery Competition (Lang Memorial Shield (Non-mirer group)).—Winners:—Sripur Colliery (Messrs. Lodna Colliery Company (1920), Limited).
- (3) Junior Inter-Colliery Competition (Cunningham Memorial Shield (Miners group)).—Winners:—Sodepur Colliery (Messrs. Bengal Coal Company, Limited).
- (4) Andrew Yule's Inter-Colliery Competitions.—Senior:—Winners—Sodepur Colliery. Junior (Non-miners)—Winners—Chanch Colliery. Junior (Miners)—Winners—Sodepur Colliery

The first three competitions were held during the Health Exhibition Week arranged by the Asansol Mines Board of Health, and the fourth was arranged by the Mining staff of Messrs. Andrew Yule's collicries.

I express my thanks to lecturers and examiners for the valuable work done in the two major coalfields and other mining districts.

# MINING BOARDS IN BENGAL, BIHAR AND THE CENTRAL PROVINCES.

The Bengal Mining Board did not meet during the year. The subjects dealt with by correspondence related to (!) certain amendments to the Indian Coal and Metalliferous Mines Regulations, 1926, the Coal Mines Rescue Rules, 1939, the Coal Mines Safety (Stowing) Rules, 1939, the Coal Grading Board Rules and the Soft Coke Cess Committee Rules; and (2) extension of the Payment of Wages Act, 1936, to coal mines. The non-official members of the Board were Messrs. F. W. Manley, A. L. Ojha and Rai Sahib Upendra Nath Mondal.

The Bihar Mining Board for coal mines did not meet during the year. The subjects dealt with by correspondence concerned certain amendments to the Indian Coal and Metalliferous Mines Regulations, 1926, and the Coal Mines Rescue Rules, 1939. The non-official members of the Board were Messrs. J. E. Phelps, A. L. Ojha, Shiva Kali Bose and S. B. Sen.

The Bihar Min'ng Board for mines other than coal mines did not meet during the year. The non-official members of the Board were Mr. J. E. Phelps, Rao Baladur D. D. Thacker, and Dr. H. W. T. Martin who was succeeded in May by Dr. William Hutchison.

The Central Provinces and Berar Mining Board did not meet during the year. The subjects dealt with by correspondence related to certain amendments to the Indian Coal and Metalliferous Mines Regulations, 1926. The non-official members of the Board were Messrs. L. H. Bartlett, O.B.E., Shamsher Bahadur

Verms, Punjilal Tuljaram Mehta, Gulabchand Choudhury and Mrs. D. E. Jackson.

#### BOARD OF EXAMINERS.

Five meetings of the Board of Examiners were held during the year. The nonofficial members of the Board were —Messrs. J. E. Phelps, G. Castles and H. K.
Nag. The local examiners appointed were Messrs. R. Brown and L. S. Buxton for
coal mine managers' first class certificates; Messrs. B. Panda and B. B. Biswas
for coal mine managers' second class certificates; and Mr. J. Mackay for the
examination for coal mine surveyors' certificates. Mr. N. G. Chatterjee, Inspector
of Mines, was also an examiner and acted as Secretary for the coal mine managers,
first and second class and coal mine surveyors' examinations.

At the examination for coal mine managers' certificates held at Dhanbad in February, 131 candidates were permitted to appear for first class certificates and 147 for second class certificates. A separate examination for coal mine managers' second class certificates only was held simultaneously at Barkui for candidates from the Central Provinces at which 14 were permitted to appear. Twelve certificates of the first class and seven of the second class were granted. At the examination for coal mine surveyors' certificates of competency held in November, 125 candidates attended the examination. Thirty-four of them were successful.

Six hundred and thirty-six persons were examined for coal mine sirdars' certificates of competency and 450 certificates were gianted. Out of 456 holders of sirdars' certificates examined in gas testing, 322 were successful and their certificates were duly endorsed to that effect. 842 holders of sirdars' certificates appeared for re-examination in eyesight and hearing. 820 were successful and their certificates were duly endorsed. Under Coal Mines Regulation 49, the certificates of eight sirdars were suspended for a period varying from two to three months. During the year 20 duplicate sirdars' certificates and 79 duplicate discs were issued.

Three hundred and thirty-eight candidates were examined for shotfirers' certificates. Two hundred and eighty-one of them were successful. Under Coal Mines Regulation 49, the certificate of one shotfirer was suspended for a period of three months. During the year two duplicate 'shotfirers' certificates and 5 duplicate discs were issued.

· MINING EDUCATION.

At the Indian School of Mines the total number of candidates on the roll during the session 1940-41 was 93, the same as in the previous year. Twenty-six students were in the first year, 21 in the second year, 24 in the third year and 22 in the fourth year. At the end of the session 26 first year students were promoted to the second year and 18 second year students were promoted to the third year. The number of candidates appearing at the final examinations held in July 1941 was as follows:—.

1 2.	Diploma or (	Certificatos.		· · ,	andidates ared.	ian'	No. of successful candidates.
Diploma of A	Lesociateship i Lesociateship i	in Geology in Mining B	ingineerin		 19	. ,	2 (Class II). 3 (Class I) 15 (Class II).
Certificate In	Coal Mining	• •	•	. •	34	:	2 (Class I) 21 (Class II).

There were 67 students at the Mining Survey camp held at Jarangdih colliery, owned by the State Railway's Coal Department, in November 1941, and one at the Geology Survey camp at Mohuda. The usual excursions and visits to mines were held throughout the year.

Four former students obtained the Second Class Colliery Managers' Certificate, standing 1st, 4th, 5th and 6th in order of merit. Nine former students obtained the First Class Colliery Managers' Certificate, including the first six in order of merit; and five former students and three present students (altogether eight) obtained the Surveyors' Certificate of Competency including the 1st, 2nd and 3rd in order of merit.

In the Department of Mining and Metallurgy at the Benares Hindu University there were 133 students at the beginning of the session, as compared with 123 students at the beginning of the previous session. Thirteen students passed the final examination for the Degree of B. Sc. in Mining and 16 in Metallurgy. The total number of mining graduates is now 52 and the total number of Metallurgy graduates 108. Most of the graduates were employed almost immediately after qualifying. Tours of inspection were paid to Banderchua mica mine and to the dressing plant at Lokai belonging to Messrs, Chrestien Mining Company, Limited, at Kodarma. Visits were made to many up-to-date collieries fitted with modern machinery, including Dishergarh "A" and "B" pits of Messes. Macneil & Company, Limited, in the Raniganj coalfield. Geological field work for the second year students was conducted in the Barakar area and geological mapping work of the final year mining students was held at Khanudih. Mine surveying work of the final year mining students was conducted at the Begonia colliery in the month of December 1941 by the kind permission of Messrs. Karam Chand Thaper & Company, where thirteen students were in attendance. During the summer vacation 48 students were sent for practical training in the most important Mines and Metallurgical Works, including the petroleum mines at Digboi (Assam). Two mining graduates of this University were successful at the second class Colliery Managers' examination held in February 1941.

Evening Mining classes (in English) were held, as usual, in both the coalfields of Bengal and Bihar during the year 1941. In Bengal, the classes were held at Sitarampur and Raniganj (instead of Parascole), while in Bihar the classes were held at Sijua and Jharia as before. The total number of students enrolled in these classes was 81 for Bengal and 168 for Bihar, as against 72 and 185, respectively, in the previous year. Administrative approval of the Bengal Government was received for the continuance of the Evening Mining classes in Bengal for a further period of one year, with effect from July 1942.

Twenty-one of the third year students (Bengal 4 and Bihar 17) appeared at the final examination and 9 were successful (Bengal 1 and Bihar 8). In both the coalfields, courses of lectures were delivered in the vernacular to overment and sirders in the Raniganj coalfield in Bengali, and in the Jharia coalfield in Hindi. The number of centres in the Raniganj coalfield was 8 and 108 students were enrolled for this course. In the Jharia coalfield there were six centres with a total enrolment of 263. Classes in gas-testing were also held as usual, at Sitarampur and Jamunia in the Raniganj coalfield and, at Jharia in the Jharia coalfield for the training of colliery sirders and shotfirers in gas-testing. The number of candidates enretled for these classes in the Raniganj coalfield was 16 and in the Jharia coalfield 25.

# Scientific and Technical Associations.

(a) Mining, Geological and Metallurgical Institute of India.

The total number of members, including subscribers, at the end of the finanil year of the Institute, i.e., on the 31st October 1941, was 492. A member, her than an Associate or a Student Associate or a Subscriber, will become a commember of the Institute at the end of 30 years of membership without further syment of yearly subscriptions. In addition to the annual meeting, three redinary general meetings were held for the reading and discussion of papers. A sist was paid to the Satpukuria-Ghusick area of the Raniganj coalfield, where ections of seams were examined. A commatograph film on "The Mica Industry" was exhibited, and a lecture was delivered on the "Washability of Indian Coals". During the year the inaugural meeting of the Central Provinces branch was held at which a visit was made to Messrs. Shaw Wallace & Company's Barkui colliery at Parasia. Papers were read and discussed.

Only one part of the Transactions was published, forming part 2 of Volume 36. The Government of India prize was awarded to Dr. Charles Forrester and Mr. W. Gilbert for their joint paper entitled "Some Aspects of the Chemical and Mineral Industries with special reference to wartime problems and post-war industrial development". The Institute silver medals were awarded to Dr. Charles Forrester and Mr. W. Gilbert for the above-mentioned paper and the Institute bronze medal to Mr. R. G. Chatterjee for his paper "Sinking a Shaft through 220 feet of clay above Barakar Sandstone in the Pench Valley Coalfield". Mr. R. Mather represented the Institute on the Council of the Institute of Fuel till March 1941, when Mr. T. Dewhurst took his place. The Pickering medal, presented by the Institute for the best student in Mining at the Indian School of Mines, was awarded to Mr. Kesheswar Rai. Certificates in lieu of the three medals—Roberton medal, La Touche medal and Hadfield medal—presented by the Institute for the best students in the final examinations at the Benares Hindu University in Mining, Geology and Metallurgy, respectively, were awarded to the following:—

Mining. Mr. M. L. C. Choudhury. Mr. Munshi Lal Sethi.

Geology. Mr. C. Rajagopalan. Mr. R. R. Gangavathi.

Metallurgy. Mr. Sukhvir Singh Singhal. Mr. Alexander Moses Elijah.

At the end of the session 1940-41 the total membership was 232. In addition to the annual general meeting twelve ordinary general meetings were held. All these meetings were held in the Geological Laboratory, Presidency College, Calcutta. Thirteen original papers on various aspects of Geology, Mining and M. tallurgy were read and discussed at these meetings. During the year Parts 2, 3 and 4 of Volume XII and Part I of Volume XIII of the Quarterly Journal of the Society were issued. Four excursions to the following places were arranged:—
(i) The Satpukuria area of Mesars. Martin and Company's collieries in the Raniganj coalfield jointly with the Mining, Geological and Metallurgical Institute of India; (ii) Scientific Indian Glass Company, Limited, 98, Christopher Road, Calcutta; (iii) Bengal Waterproof Works at Panihati, 24-Parganas; and (iv) Calcutta Safe Deposit Vault, Security House, 102/A, Clive Street, Calcutta.

Regarding the silver medal competition amongst the Student Associates of the Society during the year, a silver medal was awarded to each of the following Student Associates for the best papers on Mining and Metallurgy subjects:—

(i) Mr. C. L. Malhotra of the Indian School of Mines, Dhanbad, for his paper entitled "Notes on the working and dressing of Marble Quarries, Jodhpur State"; and (ii) Mr. G. D. Banerjes of the Benares Hindu University, Metallurgy Department, for his paper entitled "Study on the efforts of German Silver addition to greycast iron".

## (c) The National Association of Colliery Managers (Indian Branch).

The number of members of the National Association of Colliery Managers, Indian Branch, at the end of the year was 101. Some of the subjects deal with by the Council during the year were:—An effort was made to obtain an representation on the Jharia Mines Board of Health; endeavours to obtain an Act similar to the Calcutta Suburban Police Act, 1886, in Bihar were unsuccessful, but in Bengal the "Bengal Criminal Law" was introduced and this embedied some of the recommendations made. The Council gave their views at the request of the Indian Mining Association on some aspects of the Jharia coal-field labour and other matters. The Council made suggestions and comments in regard to proposed amendments of the Indian Coal Mines Regulations, Coal Mines Safety (Stowing) Rules and Coal Mines Rescue Rules.

Mr. J. Thomas was the Association's representative on the General Council in Great Britain. Mr. W. V. Curtain was joint representative of the National Association of Colliery Managers (Indian Branch) and the Indian Mine Managers' Association on the Asansol Mines Board of Health; Mr. J. H. Paterson represented the Association on the Mining Education Advisory Board; Mr. W. McDonald represented the Association on the Rescue Stations Committee and Mr. R. J. Legg was the representative on the Central Committee, Asansol Health and Baby Welfare, Mr. J. H. Paterson represented the Association on the Executive Committee of the Asansol District Charitable Society, while Mr. H. S. Allen was the representative on the Dhanbad and District Leprosy Messrs. T. P. M. Evans and A. Mack were the Association's Relief Fund. representatives on the Railway and Collieries Advisory Board; Messrs. H. S. Allen and T. Morrison represented the Association on the Dhanbad and Collieries Cemetery Committee; Mr. T. P. M. Evans represented the Association on the Raniganj Coalfield A. R. P. Committee, and Mr. T. Morrison on the Dhanhad Sub-division Advisory Commatee on Price Control and the Dhanbad Local Advisory Committee on Petrol Rationing.

## (d) The Indian Mine Managers' Association.

The membership of the Indian Mine Managers' Association at the end of the year was 260. Among the activities of the Association during the year were the following: -(1) Consideration of draft amendments of the Indian Coal Mines Regulations, 1926; (2) consideration of the draft amendments of Rules 5, 21 and 30 of Coal Mines Rescue Rules, 1939; (3) consideration of the draft amendments to the Indian Coal Mines Regulations as circulated under Notifications No. M-76, dated the 12th June 1941, and M-1055(1), dated the 27th October 1941; (4) consideration of the draft amendments of Rule 28 of the Coal Mines Safety (Stowing) Rules, 1939; (5) further consideration of the enforcement of the Bengal Boiler Attendants' Rules, 1939; (6) consideration of the extension of the Payment of Wages Act, 1939, to coal mines; (7) consideration of a letter received from the Chief Inspector of Mines in India in connection with a case instituted against a member of this Association for the contravention of Rule 17-A; (8) consideration of the proposal by the East Indian Railway to limit the number of colliery representatives attending the Railways and Collieries Advisory Board's meetings; (9) consideration of Air Raid Precautions in the Raniganj coalfield; (10) consideration of the proposal to fix the amount of the lump sum subscription for life members of this Association; (11) consideration of the proposal of assessment of union rates on colliery employees in the Asansol sub-division; (12) consideration of the proposed amendments of Bye-laws of the Asansol Mines Board of Health (13) consideration of the periodical reports submitted by the Association's presentatives on different bodies; (14) further consideration of the position in members with second class Colliery Managers' Certificates and a perusal of says and means to minimise difficulties in regard to employment; (15) consideration of the report on an inspection of the Evening Mining Classes by the Secretary and the Additional Secretary, Mining Education Advisory Board; (16) consideration of the proposed publication of Coal Mines Manual, Part II; (17) circulation of the lists of typical accidents at mines under the Indian Mines Act, 1923, with suggested remedial measures received from the Chief Inspector of Mines in India; (18) participation in the activities of the Safety First Association of India, Bombay; (19) participation in the Railways and Collieries Advisory Board meetings; (20) excursions to various places of interest; (21) nemination of a representative of the Association on the A. R. P. Colliery Advisory Committee, Raniganj coalfield; and (22) attending the official opening ceremony of the Jharia and Raniganj Rescue stations.

Mr. S. C. Ghosh was the representative on the Mining Education Advisory Board and on the Asansol Health and Baby Welfare Society (Central Committee); Dr. R. P. Sinha was the representative on the Coal Mines Rescue Stations Committee; Mr. K. M. Chatterjee was the representative on the Asansol Sub-divisional War Committee; Rai Sahib U. N. Mondal and subsequently Mr. M. M. Mukherjee. was the representative on the A. R. P. Colliery Advisory Committee; Mr. S. N. Mitter was the representative on the Leprosy Board, Asansol, and Mr. W. V. Curtain of the National Association of Colliery Managers (Indian Branch) represented the Association jointly with the National Association of Colliery Managers (Indian Branch) on the Asansol Mines Board of Health.

#### (e) The Railways and Collieries Advisory Board.

The following are among the subjects dealt with by the Railways and Collieries Advisory Board during the year:—(1) consideration of the suggestion of combined allotment instead of allotments in various routes; (2) detention of vehicular traffic at the B. N. Railway G. T. Road Level Crossing at Kulti Works; (3) proposal by the East Indian Railway to limit the number of colliery representatives attending the Board's meeting which was later withdrawn after discussion; (4) disposal of undelivered coal consignments by sale by public auction under sections 55 and 56 of the Railway Act and the suggestion to empower the Coal Area Superintendent, E. I. Railway, Dhanbad, to deal with and settle cases of any deficit of Railway freight for State and non-State Railways; (5) fixation of time limit for accepting wagon indents at important railway stations in different seasons; (6) proposal for printing of a new Routing Table showing the important changes introduced for proper guidance to collieries; and (7) proposal for changing the method of indents of wagons booked for collieries served by the E. I. Railway to B. N. Railway stations via Pathardihi and Katras links.

Four meetings of the Board were held. The Divisional Superintendent, East Indian Railway, Asansol, was the President and the Coal Area Superintendent,

East Indian Railway, was the Honorary Secretary.

## THE COAL MINES STOWING BOARD.

The Board held nineteen meetings during the year. There was a change in the membership of the Board due to the resignation in August of Mr. C. A. Innes, a representative of the Indian Mining Association, who was succeeded by Mr. L. J. Barraclough, M.Sc., M. I. Min. E., Chief Mining Engineer, Messre. Andrew Yule & Company.

In my Annual Report for 1940, reference was made to the protective works undertaken at Jharia and the Kari Jore. In the year under review there has

been greater activity and 170,000 tons of sand were used for "blanketing" the fire area at Jharia and stowing the underground galleries of the adjoining Nilumpathra colliery. At the Kari Jore "blanketing" operations were continued under the supervision of the Bhuggutdih colliery, owned by the Bengal Nagpur Coal Company, Limited. The valuable assistance given by the management of Bhuggutdih colliery in this connection was much appreciated by the Board. On the west side of this fire area, i.e., in the Kustore and Kusunda-Nyadee sections a number of boreholes were put down to underground galleries through which incombustible material was flushed with the object of forming a barrier and preventing the spread of the fire.

A large number of applications for assistance for voluntary stowing was received by the Board and in order to obtain independent and expert opinion a technical committee was constituted to consider and report on these applications in regard to certain terms of reference laid down by the Board. The technical committee consisted of the following members:—(1) Mr. G. Castles, Chief Mining Engineer, Messrs. Shaw Wallace & Company; (2) Mr. H. K. Nag, Mining Engineer and Geologist; (3) Mr. J. K. Dholakia, Mining Engineer, Ballihari Collicry Company, Limited; and (4) Mr. S. F. Tarlton, Chief Mining Engineer, Messrs. Bird & Company.

Messes. T. H. Williams and S. Mukherjee were appointed Inspecting Officers of the Board for the Jharia and Raniganj coalfields, respectively.

#### THE RESCUE STATIONS COMMITTEE.

During the year the personnel of the Committee remained unchanged. The Committee held twenty meetings and also made numerous inspections of the two rescue stations. Construction of buildings, installation of sanitary fittings, water supply and electrical fittings, the making of roads and improvement of sites were pushed forward and by the end of July both rescue stations were completed. During this period, the Committee designed and placed orders for Rescue vans, furniture and fixtures and numerous items of equipment were purchased. In the second half of the year the selection of the permanent staff and the organisation of the stations were undertaken.

The Jharia Rescue Station was opened early in August and training of the first team of colliery rescue workers was commenced on the 25th August. The time taken to build, equip and bring this rescue station into full operation was, therefore, two years and three months from the appointment of the Committee.

As the majority of the permanent staff for the Raniganj Coalfield Rescue Station had to be trained at the Jharia Rescue Station prior to their appointment it was not possible to bring the former station into full operation until the 25th September.

· By the end of the year, 51 and 25 men from various collieries had been fully trained in rescue work at the Jharia and Raniganj stations, respectively.

The total cost of each rescue station completed and fully equipped war Rs. 2,15,000.

#### LABOUR ASSOCIATIONS.

# (a) The Indian Colliery Labour Union.

This Union is registered under the Indian Trade Unions Act, 1926. The number of members on the roll is given as 9,301, consisting chiefly of miners and skilled and unskilled labourers at mines. The rates of subscription are given as from the

es to four annas per month. Lectures were given during the year on wilfare hemes. It is claimed that members have been assisted in contesting compensations and in the settlement of wage disputes.

## (b) The Indian Miners' Association.

The Indian Miners' Association is registered under the Indian Trade Unions Act. 1926. It had a membership of 7,500 at the end of the year. The members are hiefly miners and other manual workers at mines. The subscription varies from one anna to four annas per month according to the scale of pay. Lectures on hygiene and temperance, etc., were conducted during the year. The Association assisted its members in claims for compensation and in wage disputes.

#### VISITORS TO THE COALFIELDS.

His Excellency Sir Henry Joseph Twynam, K.C.S.I., C.I.E., I.C.S., Governor of the Central Provinces and Berar, accompanied by Lady Twynam visited the Pench Valley Coalfield during the period 29th June to 1st July, during which time His Excellency opened the Twynam Operating theatre of the Barkui Hospital, belonging to the Pench Valley Coal Company, Limited, and the Amal-

gamated Coalfields Limited.

The Hon'ble Mr. H. C. Prior, C.I.E., I.C.S., Secretary to the Government of India, Department of Labour, visited the Jharia coalfield from the 10th to 12th July. On the 10th July, accompanied by the President of the Rescue Stations Committee, an inspection was made of the Jharia Rescue Station and surface inspection of Bhuggutdih colliery; on the 11th July the Indian School of Mines; and on the 12th July, accompanied by the Chairman, Coal Mines Stowing Board, an underground inspection was made of Bhulanbararee colliery and the Jharia and Kari Jore fire areas.

Sir Alexander Cameron Badenoch, C.S.I., C.I.E., I.C.S., Chief Commissioner for the St. John Ambulance Brigade Overseas, accompanied by Col. W. C. Spackman, I. M. S., Commissioner, No. 9 District, inspected the Dhanbad-Jharis Coalfield Sub-District of the St. John Ambulance Brigade Oversess at Jamadoba,

Bhowra, Lodna, Barari and Kustore collieries on the 9th November.

# OFFICIAL DUTIES, 1941.

Mr. W. Kirby was Chief Inspector of Mines. He was on leave from 18th May to 17th July.

Mr. N. Berraclough was Deputy Chief Inspector of Mines and officiated as Chief

Inspector of Mines from 18th May to 17th July.

Mr. G. S. Cameron was Inspector of Mines, No. 2 Circle, and officiated as Deputy Chief Inspector of Mines from 18th May to 17th July.

Mr. N. G. Chatterjee, Inspector of Mines, held charge of No. I Circle throughout

the year.

Mr. N. N. Sen Gupta, Electric Inspector of Mines, was on leave from 21st August

to 23rd September.

Mr. H. K. Chatterjee, Junior Inspector of Mines, was en leave up to 31st January and officiated as Inspector of Mines, No. 2 Circle, from 18th May to 17th July.

Mr. S. S. Grewal, Junior Inspector of Mines, was on duty throughout the year.
Mr. V. S. Chopra, Junior Inspector of Mines, was on leave from 15th January
to 26th February.

Mr. G. S. Jabbi, Junior Inspector of Mines, was on leave from 21st July to 2nd

August and from 12th August to 29th October.

Mr. I. J. Badhwar, Junior Inspector of Mines, was on duty throughout the year. Mr. Ma Yann, Assistant Inspector of Mines, was on duty throughout the year.

# APPENDIX II.

Accidents in Mines.

Seria Number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
12	IIth February, 3 P.M.	Kurhurbaree mine, Giridih P. O., Bihar.		ROOF—contd.  Mohabally, (m.), 36, Loader.	Coal .	While loading coal in a depillaring area, deceased was struck and fatally injured by a mass of stone 3'×1'6" and from 4" to 1' thick, which fell from the roof at a height of about. 8 feet. Inspection and inquiry made.
13	11th February, 7-30 P.M.	Baragolai mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Paidar Pathan, (m.), 24; Gulhambar Pathan, (m.), 24; Loaders.	Coal .	A number of persons was engaged in loading coal in an "opening" when a mass of coal, weighing about 3 tons, fell from the roof from a height of 23 feet. The deceased were struck and killed on the spot and two other persons received serious injuries. Inspection and inquiry made.
14	16th February, 4-30 A.M.	East Bhuggutdih mine, Jharia P. O., Bihar.	East Bhuggutdih Colliery Co., Ltd.	Baugali Singh, (m.), 30, Labourer.	Coal .	While deceased with another timberman was removing a prop, which had been withdrawn from a depillaring area, a mass of shale, 4'×3'×3" thick, fell from the roof at a height of 18 feet and struck him causing serious injuries which proved fatal 4½ months later. The other person was also seriously injured. Inspection and inquiry made.
15	28th February, 10-45 P.M.	Pretoria mine, Charanpar P. O., Bengal.	Seehpore Coal Co., Ltd.	Rebon Tanti, (m.), 50, Loader.	Coal .	While a loader was loading coal in a gallery 15 feet high, he was struck by a piece of stone, 6"×3"×3", which fell from the roof. He was fatally injured. Inspection and inquiry made.
16	1st March, 2 r.m.	Angarpathra mine, Sijua P. O., Bihar.	Union Coal Co., Ltd.	Surja Kole, (m.), 30, Loader.	Coal .	A mass of coal and stone, 14'×2'6"×1'6" thick, fell unexpectedly from between two concealed "slips" in the roof of a gallery, 6 feet high in which roof coal was being taken down and struck a loader, indicting fatal injuries. Inspection and injury made.

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17	3rd March, 6 r.m.	Standard (Jharia Khas Section) mine, Jharia P. O., Bihar,	Standard Coal Co., Ltd.	Thulu Majhi, (m.), 25, Coal-cutter,	Coal .	-	While decrased was engaged in cutting coal on a long-wall face a mass of stone, $6' \times 4' \times 1'$ thick, fell off a "slip" in the roof at a leight of about 3½ feet and struck him, causing serious injuries which proved fatal 7 days later. Inspection and inquiry made.
18	4th March, 2-30 р.м.	Pretoria mine, Charanpur P. O., Bengal,	Scebpore Coal Co., Ltd.	Bhaba Bauri, (m.), 30; Pashu Bauri, (m.), 32; Loaders.	Coal .		While a gang of loaders was engaged in loading coal, blasted from the side of a pillar under extraction, a piece of stone, $3' \times 1' 6' \times 3''$ , fell from the roof from a height of 15 feet. The deceased sustained serious injuries to which they succumbed the same day and another loader was seriously injured. Inspection and inquiry made.
19	7th March, 1 A.M.	S'jua mine, Sijua P. O., Bihar,	Tata Iron & Steel, Co., Ltd.	Chbotu Majhi, (m.), 36, Coal-cutter.	Coal .		During pillar extraction operations in a seam 14 feet thick, there was a sudden extensive collapse of inferior roof coal in the adjoining goaf and part of the "stook" of coal, on which work was in progress, also collapsed. Deceased was killed instantly. Inspection and inquiry made.
20	7th March, 1 r.m.	Jinagora (East Bararce) mine, Jhavia P. O., Bihar.	Jinagora (East Bararec) Colliery Co., Ltd.	Hadi Meah, (m.), 45, Loader.	Coal .		Deceased was loading coal, blasted from the side of a pillar under extraction, when a mass of shale, $6'\times2'$ $6''\times4''$ , fell from the roof from a height of 26 feet. He sustained serious injuries to which he succumbed three hours later. Inspection and inquiry made.
21	Sth March, 12-45 p.m.	Budroochuck mine, Sijua P. O., Bihar.	Budroochuck Coal Mining Co., Ltd.	Arad Ali Meah, (m.), 35, Coal-cutter.	Coal .	. }	Deceased was cutting roof coal in a depillaring area by standing on a stool, when a mass of coal fell and upset it. He fell to the floor and the mass of coal and stone which he was lever- ing down with his pick, fell on him from a height of about 9 feet, killing him instantly. Inspection and inquiry made.
22	20th March, 7 ▲.M.	Saltore mine, Necturia P. O., Bihar.	Burrakur Coal Co., Ltd.	Sheikh Jewal, (m.), 26, Stone-cutter.	Coal .	.	During sand stowing operations in a seam 15 feet thick, the vibration set up in the sand stowing pipe was transmitted to the roof through three props on which the pipe was supported, and caused a mass of stone, $6' \times 5' \times 1'$ , to fall from a height of 7 feet. A piece of the stone fell on the pipe and then struck a stone-cutter, fatally injuring him. Inspection and inquiry made.
	31st March, 4 n.s.;	Bararos mine, Jealgers P. O., Baber,	Fast Indian Coal Co., Ltd.	Dowari Bauri, (m.), 40, Coal-cutter.	Coal .	.	While deceased was driving a gallery through a pillar a mass of stone, 5'×2'×1'8", fell from the roof from a height of 7 feet and killed him. The mass of stone was bounded by a "shp" and a cleavage plane. Inspection and inquiry made.

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Number,	Date and hour of accident.	Name and aituation of mine.	Name of owner.	Name, sex, age and occupa- tion of person killed.	Name of mi- neral worked.	Cause of accident and remarks.
	-	•		FALLS OF ROO	OF—contd	,
24	8th April, 9-45 p.m.	Pretoria mine, Charanpur P. O., Bengal.	Seebplare Coal Co., Lad.	Sundar Kumar, (m.), 39, Coal-cutte	Coal .	Deceased was standing on a ladder, levering down overhanging coal from the corner of a small pillar 15 feet high. When the coal fell it released a mass of roof stone, 4'×1'×1', which in falling struck——deceased and knocked down the ladder. Deceased sustained injuries, which proved fatal 3½ hours later. Inspection and inquiry made.
5	Ilth April, 3-30 A.M.	Bhatdee mine, Mohuda P. O., Bihar.	Bengal Bhatdee Coal Co., Ltd.	Laru Kumar, (m.), 48, Underground Sirdar.	Coal .	A Sirdar who was testing the roof of a gallery, 8 feet high, was struck by a mass of shale, 3'×2'×1'3", which fell without warning. He sustained injuries which proved fatal about 2 months later. Inspection and inquiry made.
В	15th April, 11 A.M.	Baragolai mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Nur Md. Pathan, (m.), 27, Coul-cutter.	Coal .	While deceased was engaged in a gallery, 4 feet in width and 5 feet in height, he was fatally injured by a piece of stone, I'×1'×4", which fell on him from the roof. Inspection and inquiry made.
27	24th April, 7 A.M.	Dishergarh West mine, Dishergarh P. O., Bengal.	Equitable Coal Co., Ltd.	Iswar Tanti, (m.), 28; Jogeswar Tanti, (m.), 45; Chetan Show, (m.), 24; Andhi Tanti, (m.), 38; Dharsan Tanti, (m.), 40; Puran Mahato, (m.), 45;	Coal .	While a number of loaders was filling baskets of coal in a gallery, a severe "bump" occurred, and caused a mass of coal, estimated at 15 tons, to fall from the roof. Six of the loaders were struck by the falling coal and killed instantly. Inspection and inquiry made.

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28	24th April, 8-30 a.m.	Hindubagh No. 30, mino, Hindubagh P. O., Baluchistan.	Baluchistan Chrome Co., Ltd	Qurban Ali, (m.), 40, Loader.	Chromite	While three leaders were working in an underground gallery, a mass of chromite ore, 4'×3'×1'6", fell from a cleavage plane in the roof at a height of 4 feet, killing one of them on the spot. Inspection and inquiry made.
29	30th April, 7-45 A.M.	Sitalpur (No. 3 Pit) mine, Dishergarh P. O., Bengai.	Bengal Coal Co., Ltd.	Joha Meah, (m.), 37, Louder.	Coal .	While deceased was engaged in filling a basket with coal in a gallery close to a depillaring area, a "bump" occurred, causing a mass of roof stone, 5'×4'×4", to fall from a height of 9 feet. He was struck and killed instantly. Inspection and inquiry made.
80	5th May, 2 P.M.	South Bulliari- Kendwadih mine, Kusunda P. O., Bihar.	East Indian Coal Co., Ltd.	Debi Roy, (m.), 50; Etwari Singh, (m.), 42; Tipon Roy, (m.), 45; Khago Roy, (m.), 31;	Coal	A sudden fall of roof extended from a goaved area to an adjoining small "stook" where a gang of miners and loaders was at work. Eight persons were killed instantly and another expired shortly after being extricated. Inspection and inquiry made.
				Bisua Roy, (m.), 34; Coal-cutters. Nuau Singh, (m.), 27; Behari Bauri, (m.), 30; Ganpat Roy,	-	
	٠,		•	(m.), 30; Loaders. Jagdoo Bhar, (m.), 35, Timberman.		
51	6th May,	Sripur (1, 2 & 3 Pita) mine, Kalipal ari P. O., Bengal	Lodna Collicry Co. (1920), Ltd.	Tahir Meah, (m.), 25, Loader.	Coal .	While a loader was filling a backet with coal blasted from the roof of a gallery adjoining a depillaring area, a severe "bump" occurred, causing a mass of coal, weighing about 2 cwts, to fall from the roof from a height of 11 feet. He was struck by the falling coal and fatally injured. Inspection and inquiry made.
33	6th May, Br.m.	Bhatdih mine, Mabuda P. O., Bihar,	Bengal Bhatdib Coal Co., Ltd.	Robi Mahato, (m.), 35, Cont-cutter.	Coal .	While decreased was engaged in cutting coal from a "stock" in a depillaring area, a mass of shale, 6'×1'6"×1' thick, fell from the roof at a height of about 6 feet and atruck him, causing fatal injuries. Inspection and inquiry made.

Seriel Number.	Date and hour of accident,	Name and situation of mine.	Name of owner.	Name sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
	"		FALLS	OF ROOF—contd.		
32	7th May, 11 A.M.	Datla mine, Junnordeo P.O., Central Provinces.	Amalgamated Coalfields, Ltd.	Poosa Gond, (m.), 25, Labourer.	Coal .	While two men were engaged in clearing stones from a dip gallery adjoining a goaf, a piece of shale about 1'6"×1'×6", fell from the roof at a height of 9 feet and struck one man on his head. He was killed on the spot. Inspection and inquiry made.
34	15th May, 3-30 A.M.	Lodna mine, Jharia P.O., Bihar,	Lodna Colliery Co. (1920), Ltd.	Thakurdin Panday, (m.), 38, Timberman.	Coal .	While deceased was removing a prop which had been dislodged by a prop withdrawer in a depillaring area, an extensive fall of roof, 15'×22'×4' thick, took place and fatally injured him. Inspection and inquiry made.
35	15th May, 3-15 P.M.	Jamadoba mine, Jealgora P.O., Bihar.	Tata Iron & Steel Co., Ltd.	B. K. Kanungo, (m.), 30, Overman.	Coal .	While deceased was engaged in releasing a sylvester chain from beneath a mass of stone that had fallen after the withdrawal of a prop in a depillaring area, a mass of stone, $10^{\circ} \times 6^{\circ} \times 1^{\circ}$ thick, fell from the roof at a height of about 12 feet and struck him, inflicting fatal injuries. Inspection and inquiry made.
<b>3</b> 6	16th May, 4-30 r.m.	Lodna (Nos. 4 & 5 Pits) mine, Jharia P.O., Bihar.	Lodna Colliery Company (1920), Ltd.	Thuri Ruhidas, (m.), 38, Loader.	Coal .	Deceased was struck and fatally injured by a mass of coal, 1'6"×1'×6", which fell from between two converging "slips" in the roof at a height of 13 feet. Inspection and inquiry made.
37	19th May, 12-30 p.m.	Kolhia mine, Junnordeo P.O., Central Provinces.	Kolhia Hirdagarh Co., Ltd.	Bijju Golli, (m.), 26, Labourer.	Coal .	While four men were tramming a loaded tub along a level roadway 12 feet wide, a mass of coal and shale, 10'×4'×1' 6", fell from the roof at a height of 9 feet. One man was struck and sustained injuries which proved fatal half an hour later. Inspection and inquiry made.
38	20th May, 0-15 a.m.	Kurhurbaree mine, Giridih P.O., Bihar,	State Railways' Coal Department.	Roshan Koiri, (m.), 45; Mandoo Koiri, (m.), 27; Timberman.	Coal .	While engaged in erecting a cog under roof which was known to be insecure two timbermen were struck and fatally injured by a mass of stone, 8'×5'×1' 3', which fell from between two "elips" at a height of 10 feet. Two miners were also struck and seriously injured.

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		1	1	1	1	If temporary supports had been set to the insecure root puore building of the cog was commenced the secident would have been avoided. Inspection and inquiry made.
30	29th May, 6-30 A.M.	West Jamuria mine, Charanpur P. O., Bengal.	West Jamuria Coal Co., Ltd.	Fudi Mesh, (m.), 32, Loader.	Coal .	While coal was being loaded in a depillaring area in a seam 14 feet thick, a fall of roof took place without warning in the adjoining goaf and extended a few feet into the depillaring area. A loader who was at work near the edge of the goaf was struck and killed on the spot. Inspection and inquiry made.
40	30th May, 1-46 A.K.	Amlabad mine, Jealgora P. O., Bihar.	Eastern Coal Co., Ltd.	Janki Kahal, (m.), 28, Loader.	Coal .	While deceased was loading coal in a depillaring area, a mass of roof shale, 17'×11'×1'3", fell from a height of 11 feet. He was struck by the falling shale and fatally injured. Inspection and inquiry made.
41	6th June, 10 a.m.	Ledo Valley mine, Ledo P. O., Assam.	Assam Hailways and Trading Co., Ltd.	Wabli Musalman, (m.), 22, Coal-cutter.	Coal .	While two miners were engaged in cutting roof coal in an "opening", a mass of coal and stone, 7'×6'×1'6", tell suddenly from a height of 7 feet, and struck both of them, one of whom was fatally injured and the other seriously. Inspection and inquiry made.
	8th June, . 8-30 A.M.	Pidh mine, Pind Deden Khan P. O., Punjah.	R. S. Lala Ishar Das Kapur.	Anwar Shah, (m.), 28, Timberman.	Coal	While deceased was preparing holes in the floor of a gallery, preparatory to erecting supports, a mass of roof shale, 3'×2'×2', fell from a height of 5 feet. He sustained injuries which proved fatal 27 days later. Inspection and inquiry made.
43	18th June, 11 A.M.	Sor Range Lease No. 96 mine, Quetta P. O., Baluchistan.	Sad-Uddin & Co.	Abdul Gafur, (m.), 26, Manager.	Coal .	Deceased was buried and killed by an extensive tall of roof, in an underground gallery. Inspection and inquiry made.
- 44	24th June, 4-30 r.m.	Burra Dhemo mine, Sitarampur P. O., Bengal.	Burra Dhemo Coal Co., Ltd.	Khaderon Gope, (m.), 32, Loader.	Coal .	In a depillaring area two men were loading blasted roof coal, when a mass of coal, 15'×10'×3', fell from the roof at a height of 7 feet. A few pieces of coal rebounded from the floor and struck them. One was fatally injured and the other sustained serious injuries. Inspection and inquiry made.
4.5	20th June, 12-35 r.m.	Khas Jinagora mine, Jharia P. O., Bihar.	Anandamoyee Coal Co.	Guhiram Mahato, (m.), 25, Labourer.	Coal .	As a timberman and his assistant were about to commence withdrawing props from a depillaring area under the supervision of an overman an extensive fall of roof took place with very little warning. Two of them managed to escape but deceased was buried and killed instantly. Inspection and inquiry made.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
				FALLS OF ROOF—	ontd.	
. 46	5th July, 11-30 a.m.	Sripur (Nos. 1, 2 and 3 Pits) mine, Kalipahari P. O., Bengal.	Lodna Colliery Co. (1920), Ltd.	Ram Charan Kurmi, (m.), 42, Coal-cutter.	Coal .	While deceased was drilling a shot-hole in roof coal in a depillaring area, a "bump" occurred, dislodging a large mass of coal from the roof at a height of 8 feet. Deceased was seriously injured and died 23 days later. Inspection and inquiry made.
47	8th July, 11 r.m.	Rawanwara mine, Parasia P. O., Central Pro- vinces.	Amalgamated Coal- fields, Ltd.	Nandaram Katia, (m.), 30, Loader.	Coal .	While deceased was loading a tub in a gallery a miner was dressing roof about 12 feet away, when a fall of roof, 10' × 2' × 6", unexpectedly extended to where deceased was standing, inflicting serious injuries on him. Later pneumonia supervened and he died 25 days after the accident. Inspection and inquiry made.
48	18th July, 12-45 p.m.	Seebpore mine, Charanpur P. O., Bengal.	Katras Jherriah Coal Co., Ltd.	Bideshi Turi, (m.), 54, Louder.	Coal .	While a gang of men was at work in a depillaring area, an extensive fall occurred in an adjoining goaf causing the collapse of a "stook" and the displacement of some roof supports. A loader was killed instantly by a dislodged prop, and two other men were seriously injured. Inspection and inquiry made.
49	20th July, 12 noon.	Sitalpur mine, Dishergarh P. O., Bengal.	Bengal Coal Co., Ltd.	Pairag Bauri, (m.), 19, Labouser.	Ccal .	While a number of men was clearing debris in a stone drift after blasting, a mass of roof stone, 9'×6'×1', fell from a height of 6½ feet. One of the men was killed instantly and another sustained serious injuries. Inspection and inquiry made.
50	26th July, 8 a.m.	Chapui Khas mine, Kalipahari P. O., Bengal.	Maharaja S. C. Nandi.	Bishwa Nath Tewari, (m.), 40,	Coal .	While an overman was sounding the roof in a gallery 7 feet high, a mass of roof shale, $2 \times 16 \times 2$ , fell and struck him on the back of his neck. He sustained a spinal injury, and died 17 days later. Inspection and inquiry made.

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<b>5</b> 1	4th August, 4-15 r.m.	Sodepur (Nos. 9 & 10 Pies) mine, Sundarchak P. O., Bengal.	Bengel Coal Co., Ltd.	Lal Majhi. (m.), 34; Fuchia Majhi, (m.), 25; Naran Majhi, (m.), 17; Gaya Majhi, (m.), 22; Cont-cutters.	Coal .	While a gang of 15 miners was engaged in cleaning up fallen coal in a gallery after a series of "bumps" on the previous day, a mass of stone and coal fell without warning from the reof and sides. Three of the miners were killed instantly and a fourth succumbed to his injuries a month and a half later. Inspection and inquiry made.
52	9th August, 7 A.M.	Budroochuck mine, Sijua P. O., Bihar.	Budroschuck Coal Mining Co., Ltd.	Radhika Prasad Lalla, (m.), 40, Deputy Overman.	Coal	While at work in a depillaring area, deceased was struck and fatally injured by a mass of stone 12'×4'×1'6' thick, which fell from between two "slips" in the roof at a height of 7 feet. Inspection and inquiry made.
53	10th August, 4-30 a.m.	Namdang mine, Margherita P. O., Assam.	Assam Bailways and Trading Co., Ltd.	Goldan Shah Pathan, (m.), 26, Coal-cutter.	Coal .	While a sirder, assisted by two miners, was stemming a shot-hole in an "opening", 15 feet in height, several tons of roof coal suddenly collapsed burying one of the miners and killing him instantly. Inspection and inquiry made.
.	27th August, 4-30 r.m. 2nd September.	Ramnagar mine, Kulti P. O., Bengal. Poidih mine.	Bengal Iron Co., Ltd. (In volun- tary liquida- tion).	Biroo Rajwar, (m.). 29, Line-mistry.	Coal.	While at work adjacent to a depillaring area deceased was struck and fatally injured by a mass of stone, 3'×3'×6", which fell from the roof at a height of 10 feet. Inspection and inquiry made.
	11-30 A.M.	Sundarchak P. O., Bengal.	Bengal Coal Co., Ltd.	Gonory Hazra, (m.), 38, Coul-cutter.	Coal .	While three coal-cutters were engaged in extracting a pillar, a "bump" occurred and a mass of roof stone, 4'×3'×6", tell on deceased from a height of 14 feet. He sustained serious injuries to which he succumbed forty days later. Inspection and inquiry made.
<b>56</b>	3rd September, 3-30 A.M.	Katras-Choitodih mine, Katrasgarh P. O., Bihar.	Burrakur Coal Co., LAd.	Sukoo Kors, (m.), 30, Londer.	Coal .	While deceased was loading coal in a gallery a mass of roof stone, 5'×2'×1' 6" thick, fell from a "slip" at a height of 10 feet, killing him instantly. Inspection and inquiry made.
57	4th September, 1 a.m.	Akhalpur mine, Charanpur P. O., Bengal,	Hurriladih Coal Co., Ltd.	Mohan Rai, (m.), 40, Louder,	Coal .	Several persons were loading coal under unsupported roof in the vicinity of a "stook" nearing complete extraction, when a mass of side fell from the "stook" Deceased was caught by the fall and sustained injuries to which he succumbed 35 days later. Inspection and inquiry made.
58	9th September, 2-45 r.m.	Dishergarh West mine, Dishergarh P. O., Hengal,	Equitable Coal Co., Ltd.	Monu Jeswar, (m.), 28, Timberman.	Coal .	While deceased was setting a prop near a depillaring area, a "bump" occurred and a mass of roof stone, 43 × 13 × 3 6, fell on him from a height of 6 feet. He was killed instantly. Inspection and inquiry made.

APPENDIX II-contd.

Serial Number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
		· ·	FAL	LS OF ROOF—conto	d.	
59	10th September, 2-30 P.M.	Kankanee mine, Bansjora P. O., Bihar.	Eastern Coal Co., Ltd.	Bachai Kamar, (m.), 27, Loader.	Coal .	While passing along a gallery, 11 feet high, deceased was struck and killed instantly by a mass of stone, 6'×3'×5", which fe l on him from the roof without warning. Inspection and inquiry made.
60	10th September, 8-30 г.м.	South Samla mine, Pandave-war P. O., Bengal.	South Samla Colliery Co.	Huru Turi, (m.), 30, Coal-cutter.	Coal .	While deceased was resting near the entrance to a gallery, a mass of coal, 14'×2'×3' thick, fell from between two concealed converging "slips" in the roof at a height of 6 feet and struck him. He sustained serious injuries and died an hour later. Inspection and inquiry made.
61	15th September, 3-30 P.m.	Sitalpur mine, Dishergarh P. O., Bengal.	Bengal Coal Co., Ltd.	Babulal Majhi, (m.), 27, Coal-cutter.	Coal .	Deceased with two loaders was loading coal in a gallery, 9 feet high, when a mass of coal and stone, $20' \times 10' \times 1'3''$ fell from the roof, and killed him instantly. Inspection and inquiry made,
62	19th September, 2 p.m.	Ekra Khas mine, Bansjora P. O., Bihar.	Maharaja S. C. Nandi.	Jang Bahadur Ram, (m.), 45, Sirdar.	Coal .	While supervising the withdrawing of timber from a depillared area, a sirdar was killed by a mass of roof coal and stone, 15'×12'×1'6", which fell on him from a height of 9 feet. Inspection and inquiry made.
63	23rd September, 2 r.m.	Kurhurbaree mine, Giridin P. O., Bihar.	State Railways' Coal Department.	Sanichar Rai, (m.), 30, Coal-cutter.	Coal .	While a gang of miners was engaged in erecting supports at the junction of two galleries in the vicinity of a depillaring area, there was a sudden movement in the goaf and a mass of coal, 10'×8'×2' thick, fell from between concealed "slips" in the roof at a height of about 10 feet and struck deceased, killing him on the spot. Inspection and inquiry made.
6 4	29th September, 4.45 A.M.	East Khas Jharia mine, Jharia P. O., Bihar.	Khas Jharia Colliery Co. (1933), Ltd.	Chhotu Bhagta, (m.), 30, Coal-cutter.	Coal .	While filling a basket with coal in a depillaring area deceased was struck and fatally injured by a mass of shale, $3' \times 2 \times 6''$ , which fell from the roof at a height of 6 feet. Inspection and inquiry made.

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65	11th October, 3 A.M.	Burrs Dhemo mine, Sitarsmpur P. O., Bengal.	Burra Dhemo Coal Co., Ltd.	Kali Singh, (m.), 32, Conf-outter.	Coal .	While a gang of miners was working at a pillar under extraction, there were indications of the roof "weighting". While attempting to run clear deceased fell over some loose stones and sustained fatal injuries. Inspection and inquiry made.
66	11th October, 11 a.m.	Banksimula mine, Charanpur P. O., Bengal.	Bengal Coal Co., Ltd.	Kinu Mondal, (m.), 38, Labourer.	Coal	Deceased was dismantling a track in a level gallery, when a mass of coal, 14' × 4' × 1' thick, fell from the roof at a height of 7 feet displacing two bars. He was struck by the falling mass and sustained injuries to which he succumbed two hours later. Inspection and inquiry made.
67	12th October, 7-35 a.m.	Sitalpur mine, Disbergarh P. O., Bengal.	Bengal Coal Co., Ltd.	Tulsi Gope, (m.), 37, Beni Bahadur Singh, (m.), 44, Timbermen.	Coal	While withdrawing props in a depillaring area in a seam 9 feet thick, a mass of stone, 25'×25'×5', fell from the roof, killing one man on the spot and fatally injuring another. Inspection and inquiry made.
<b>6</b> 8	18th October, 2 P.M.	Budroochuck mine, Sijua P. O., Bihar.	Budroochuck Coal Mining Co., Lid.	Sadhuram Kahar, (m.), 25, Labourer.	Coal	While deceased was engaged in withdrawing a chock from the edge of a goaf, some roof-stone overlying the chock fell from a height of 8 feet and fatally injured him. Inspection and inquiry made.
69	19th October, 4-20 A.M.	Serampore mine, Giridih P. O., Bihar.	State Railways' Coal Department.	Bhangi Mallah, (m.), 32, Coal-outter.	Coal .	While a gang of miners was engaged in cutting floor coal in a depillaring area a "stock" of coal, measuring about 5'×5'×14' high which had been left against the goaf, collapsed unexpectedly and a mass of stone, 24'×12'×2' thick, fell from the roof at a height of about 16 feet. The falling stone struck two persons indicting fatal injuries on one and seriously injuring the other. Inspection and inquiry made.
, źo	22nd October, 10-30 r.m.	South Kujama mine, Jharia P. O., Bihar.	Bagdigi Kujama Collieries Co.	Farid Meab, (m.), 32, Loader.	Così .	While coal was being loaded in a depillaring area a mass of coal, weighing about 10 cwt., fell from the roof at a height of 19 feet.  A loader was struck by the falling coal and killed instantly. Inspection and inquiry made.
71	4th November, 1 a.m.	Burra Dhemo mine, Sitarampur P. O., Bengal.	Burra Dheme Coal Co., Ltd.	Ghusus Dosadh, (m.), 32, Londer.	Coal .	While deceased with others was loading fallen coal in a goaf, a mass of stone, T'×5'×4', fell on him from the roof at a height of 10 feet, inflicting fatal injuries.  Subordinate officials should have taken steps to prevent these persons entering the goaf. Inspection and inquiry made.
72	7th November, 8-45 r.m.	Poidih mine, Sundarchak P. O., Bengal.	Bengal Coal Co., Ltd.	Birsingh Majhi, (m.), 35, Coal-cutter.	Coal	While deceased and two other coal-cutters were working in a gallery, a "bump" occurred in an adjoining goaf, resulting in a fall of roof, weighing about 6 cwt., which dislodged out two props, one of which struck deceased and fatally injured him. Inspection and inquiry made.

APPENDIX II—contd.

Sorial Number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.				
	FALLS OF ROOF—concid.									
73	9th November, 12-30 a.m.	Sitalpur mine, Dishergarh P. O., Bengal.	Bengal Coal Co., Ltd.	Chutur Singh, (m,), 35, Stone-cutter.	Coal :	While a gang of men was working in a stone drift, a mass of stone, 9'×3' 6"×2', fell from the roof at a height of 8 feet.  Deceased was buried under the fall and received injuries to which he succumbed 22 hours later. Inspection and inquiry made.				
74	18th November, 11-30 ▲.M.	Poidih mine, Sundarchak P. O., Bengal.	Bengal Coal Co., Ltd.	Farai Garaharia, (m.), 25, Coal-cutter.	Coal .	Contrary to instructions deceased went through a fence, and was cutting coal from the corner of a pillar adjoining a goaf, when he was struck and killed instantly by a piece of stone, 6' 6" × 3' × 9", which fell from the roof at a height of 6 feet. Inspection and inquiry made.				
75	27th November, 11-15 r.m.	Banksimula mine, Charanpur P. O., Bengal.	Bengal Coal Co., Ltd.	Markandi Chowbey, (m.), 36, Coal-cutter.	Coal .	Deceased was standing on a ladder and levering down coal from the roof in a gallery, 10 feet high, when a mass of coal, 4'× 4'×2', unexpectedly fell on him from between two concealed parallel "slips". He sustained injuries to which he succumbed shortly afterwards. Inspection and inquiry made.				
76	3rd December, 2-30 P.M.	Godhur mine, Kusunda P. O., Bihar.	B. K. Roy	Chulo Mahato, (m.), 23, Labourer.	Coal .	Deceased was assisting to withdraw props in a depillaring area, when he was struck and killed instantly by a mass of coal, $5' \times 2' \times 6''$ , which fell from the roof at a height of 18 feet. Inspection and inquiry made.				
77	5th December, 5-45 A.M.	Kastras-Choitodih mine, Katrasgarh P. O. Bihar.	Burrakur Coal Co., Ltd.	Chunoo Mangi, (m.), 24, Londer.	Coal .	While deceased was filling his basket with coal in a cepillaring area, a mass of roof-coal, weighing about 14 cwt., fell on him from a height of 11 feet, killing him instantly. Inspection and inquiry made.				
78	8th December, 7 P.M.	Bejdih mine, Sundarchak P. O., Bengal.	Equitable Coal Co., Ltd.	Bishpot Mahato, (m.), 36. Coul-outter.	Cosl .	While deceased was carrying coal in a depillaring area, there was some "weighting" inside the goaf, causing a mass of rust coal, 30'×8'×7', to fall from a height of 8 feet. He was struck and killed instantly. Inspection and inquiry				

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79	10th December, 2 r.m.	Jataohapa mine, Parasia P. O., Central Provinces.	Amalgamated Coaliisids, Ltd.	Halley Kachbi, (m.), 38, Cool-cutter.	Coal .	While deceased was sitting nost the entrance to a gallery about 5 feet high, a mass of shale and coal, measuring about 3 × 2 × 9, fell on him from the roof. He received serious injuries which proved fatal later. Inspection and inquiry made.
80	11th December, 5 P.M.	Lodna (Nos. 4 and 5 Pitz) mino, Jharia P. O., Bihar.	Lodna Colliery Co. (1920), Ltd.	Sheo Balak Mallah, (m.), 35. Loader.	Coal .	While a loader was filling a backet with coal in a depillaring area, a mass of stone, $3' \times 1'6' \times 5''$ , fell from between two concealed converging "slips" in the roof at a height of Al feet and killed him instantly. Inspection and inquiry made.
	15th December, 7-30 r.m.	Standard mine, Jharia P. O., Bihar.  Poidih mine.	Standard Coal Co., Ltd.	Bharasa Singh, (m.), 40; Soukhi Bhuiya, (m.), 28; Louders,	Coal	While a gang of loaders was engaged in loading coal, blasted from the roof of a gallery 22 feet high, a mass of roof-coal, 6'×4'×2', fell on deceased, killing him instantly. Another loader was seriously injured and died 14 days later. Inspection and inquiry made.
82	8 P.M.	Sundarchak P. O., Bengal.	Bengal Coal Co., Ltd.	Rajnath Ahir, (m.), 26, Labourer.	Coal,	While a timberman and his two assistants were preparing to cog in a gallery in a depillaring area, a "bump" occurred releasing a piece of shale, 2'×2'×3", from the roof at a height of 16 feet. Deceased was struck and killed instantly. Inspection and inquiry made.
83	30th December, 0-30 A.M.	Sendra mine, Banejora P. O., Bihar.	Sendra Coal Co., Ltd.	Dilaki Meah, (m.), 26, Loader.	Coal	While deceased was carrying a basket of coal on his shoulder, a mass of coal, 6'×3'6'×8", fell on him from a height of 6 feet, killing him instantly. Inspection and inquiry made.
, 84	30th December, 2-85 r.m.	East Bhuggatdih mine, Jharia P. O., Bihar.	East Bhuggatdih Colliery Co., Ltd.	Somar Bhuiya, (m.), 34; Deodhari Dosadh, (m.), 34; Sanichar Bhuiya, (m.), 22; Loaders.	Coal .	While the deceased were loading coal in a depillaring area, a mass of roof-coal, 13'×8'×2'6" thick, fell from between two "slips" at a height of 15 feet and struck them. Two of the loaders were killed on the spot and another sustained serious injuries which proved fatal 4 hours later. Inspection and inquiry made.
85	30th December, 11-30 r.m.	Standard (Jharis Khas) mine, Jharis P. O., Bibar.	Standard Coal Co., Ltd.	Jethu Rajwar, (m.), 40, Looder.	Conl .	While working in a depillaring area deceased was seriouly injur- ed by a piece of stone, 8"×6"×2" thick, which fell from the roof at a height of 12 feet. He succumbed to his injuries 55 days later. Inspection and inquiry made.

APPENDIX II-contd.

Serial Number.	Date and hour of secident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
			FA	LLS OF SIDES.		
86	1st January, 1 A.M.	South Kujama mine, Jharia P. O., Bihar.	Bagdigi Kujama Collieries Co.	Siambar Pasi, (m.), 30, Loader.	Coal .	After blasting in a depillaring area, a loader was filling his basket with coal when a mass of coal, $20^{\circ} \times 10^{\circ} \times 2^{\circ}$ thick, fell from a cancealed "slip" in the side of a pillar and dislodged a prop, 24 feet in length. He was struck by the prop and fatally injured. Inspection and inquiry made.
87	9th January, 12 noon.	Khoodia mine, Mugma P. O., Bihar.	Khoodia Coal Co	Kadi Singh, (m.), 40, Coal-cutter,	Coal	While deceased was cutting coal in a gallery, a mass of coal, 6'×3'6'×3', fell from between two converging "slips" in the side. He sustained serious injuries to which he succumbed thirty-three hours later. Inspection and inquiry made.
<b>8</b> 8	19th January, 3-30 P.M.	Gulla Hurki mine, Ramrama P. O., Central Provinces.	Cheniram Jesraj .	Somaroo Morar, (m.), 30, Labourer.	Manga- nese.	Deceased was buried and killed instantly by a mass of earth weighing about 2 tons which fell from the side of an excavation 8 feet high. The side was vertical and it had been undercut. Inspection and inquiry made.
89	25th January, 1-30 P.M.	Kustore mine, Kusunda P. O., Bihar.	Raneegunge Coal Association, Ltd.	Fatu Barhi, (m.), 28, Londer.	Coal .	While deceased was returning to his working place after loading coal in a mine car, an overhanging mass of coal and stone, $3' \times 2'6''$ , fell from a "slip" at a height of 16 feet in the side of a gallery. He was killed instantly. Inspection and inquiry made.
90	26th January, 3-30 a.m.	Bejdih mine, Sundarchak P. O., Bengal.	Equitable Coal Co., Ltd.	Balgobind Patnoar, (m.), 35, Loader.	Conl	While six loaders were engaged in loading coal in a level 8 feethigh, a "bump" occurred in an adjoining goaf, and caused about 8 tons of coal to burst off the side of a pillar. One of the loaders was fatally injured and another seriously injured. Inspection and inquiry made.
91	30th January,	Bhelwa mine, Rajauli P. O.,	Chatturam Horil- ram, Ltd.	Dinu Rajwar, (m.), 24, Driller.	Mica .	While deceased was engaged in drilling a hole in a side of an opencast working, a mass of stone, 8'x4'x2' thick, fell from a "slip" in the side at a height of about 9 feet and struck him, indicating fattal najuries. Imprecion and inquire, a

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92	lat February, 3 P.M.	Kurhurtsree mine, Giridib P. O., Bihar.	State Pailway's Coal Department.	Tilak Kumar, (m.), 45. Loader.	Coal .	While deceased was leading coal in a depillaring area there was a "bump" and a mass of coal weighing about 3 cwts. fell from an overhanging side at a height of about 12 feet and struck him, causing serious injuries which proved fatal 15 hours later. Inspection and inquiry made.
93	10th February, 5 P.M.	Edurbuchi mine, Goberwahi P. O., Central Provinces.	S. Abideen	Hawasia Murar, (m.), 35; Sardar Murar, (m.), 28; Dhakla Gond, (m.), 28; Miners.	Manga- nese.	While cutting the vertical side of a quarry, 11 feet deep, a miner fell down and was buried by a fall of side. Three men who went to his rescue were also buried by a further fall of side. Two men were killed on the spot and the other two sustained serious injuries to which one succumbed six days later. Inspection and inquiry made.
94	12th February, 3 A.M.	Ponisti mine, Charanpur P. O., Bengal.	Poniati Collieries, Ltd.	Kartick Singh, (m.), 50, Overman.	Coal .	In the course of an inspection a mass of coal, $7' \times 3' \times 2'$ , fell from the side of a gallery at a height of 16 feet and killed deceased instantly. Inspection and inquiry made.
95	14th February, 9-30 A.M.	Khoodia mine, Mugma P. O., Bihar.	Khoodis Coal Co.	Bara Moti Bauri, (m.), 40, Coal-cutter.	Coal .	While at work in a gallery 6 feet high, deceased was struck and fatally injured by a mass of coal, $6' \times 3' \times 1'$ , which he had dislodged from a concealed "slip" in the side. Inspection and inquiry made.
96	ist March, 5 a.m.	Kankanee mine, Bangora P. O., Bihar.	Eastern Coal Co., Ltd.	Suklal Bhuiya, (m.), 39, Loader.	Coal .	While a gang of loaders was engaged in a depillaring area a mass of scal 3'×2' 6"×1' thick, fell from the side of a pillar at a height of about 11 feet and dislodged a prop. Deceased was struck and fatally injured by a falling prop and another person received serious injuries as he fell down while running to a place of safety. Inspection and inquiry made.
97	7th March, 1 P.M.	Madhuban mine, Jharia P. O., Bihar.	Waliram & Co	Choman Chamar, (m.), 30, Coal-cutter.	Coal .	While a gang of miners and loaders was engaged on a "stook" in a depillaring area, a mass of coal, 8'4'×2' thick, fell unexpectedly from a "slip" in the side at a height of about 8 feet and dislodged two props. Deceased was struck by one of the props and received fatal injuries and another person, while trying to run clear, fell down and sustained serious injuries. Inspection and inquiry made.
(hi)	12th March, 11 A.M.	Kurhurbaree mine, Giridih P. O., Bihar.	State Railway's Coal Department		Coal .	Whilst decessed was standing on a ladder dressing down some overhanging coal from the side of a pillar at a height of about 15 feet, a mass of coal and stone 16'×8'×4', fell from the side and knocked over the ladder. He was thrown to the ground and fatally injured. Inspection and inquiry made.

APPENDIX II-contd.

Serial Number.	Date and hour of socident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.				
	FALLS OF SIDES—conid.									
99	27th March, 6-30 а.м.	Victoria mine, Kulti P. O., Bengal.	New Beerbhoom Coal Co., Ltd.	Raju Kole, (m.), 56; Coal-cutter.	Coal .	While four miners were engaged in completing the extraction of a "stook" of coal in a seam 6 feet thick, a piece of coal and stone, 7' × 2' 6" × 1' 6", fell from the side and struck deceased fatally injuring him. Inspection and inquiry made.				
100	27th March, 5 p.m.	Satak mine, Ramtek P. O., Central Provinces.	Shamji Naranji	Girji Kunbi, (f.), 22; Labourer.	Manga- nese.	Two women undercut the side of a small quarry with the object of obtaining a white material with which to make white wash, thereby causing a mass of earth 9' × 6' × 1' 6', to fall from the side. One of them was buried and died from suffocation before she could be extricated. Inspection and inquiry made.				
101	29th March, 4-50 A.M.	Khas Jinagora mine, Jharia P. O., Bihar.	Anandamoyee Coal Co.	Benu Mahato, (m.), 56, Louder,	Coal .	Deceased passed through a fence and was removing a loose piece of coal, 1' 6"x 9" × 8", from a small pillar under extraction.  The coal fell on his thigh, causing injuries which proved fatal six hours later. Inspection and inquiry made.				
102	4th April, 8-30 A.M.	Chasnalla mine, Pathardih P. O., Bihar.	Indian Iron and Steel Co., Ltd.	Birbal Mahato, (m.), 32, Earth-cutter.	Coal .	Deceased was cutting a surface trench when a mass of soil, weighing about 2 tons, suddenly fell on him from one side at a height of 8 feet. He was suffocated before he could be extri-				
103	8th April, 4-50 r.m.	Kurhurbaree mine, Giridih P. O., Bihar,	State Reilway's Coal Department.	Bhatu Meah, (m.), 36; Rojan Meah, (m.), 52; Loaders.	Coal .	cated. Inspection and inquiry made.  While a gang of seven loaders was engaged in loading coal in a depillaring area, a mass of stone 12' × 3'6" × 1' thick from a stone band in the seam, fell from the side of a pillar at a height of about 15' and struck three of them. Two persons received fatal injuries and the third was seriously injured. Inspection and inquiry made.				
104	9th April, 5-30 A.M.	Poidih mine, Sundarchak P. O., Bengal.	Bengal Coal Co., Ltd.	Damakol Chamar, (m.). 35, Loader.	Coal	While a number of loaders was at work in a level gallery a cardox shot was fired in the mof coal in an adjacent dip gallery. The concussion of the shot dislodged about 1½ tubs of voof coal from the side of the level, which struck and fatally injured one of the loaders. Inspection and inquiry made.				

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105	10th April, 9-30 r.m.	Poidth mine, Sundarshak P. O., Bengal.	Bengal Cost Co., Ltd.	Kumar Gope, (m.), 30, Londer,	Conl .	Deceased was loading coal blasted from the roof of a gallery adjoining a goaf, when a "bump" occurred, causing a mass of coal, 4'\(\circ\circ\circ\circ\circ\circ\circ\ci
106	ioth April,	Jamadoba mine, Jesigora P. O., Bihar.	Tata Iron & Steel Co., Ltd.	Bundram, (m.), 34, Coal-custer.	Coal .	While at work in a split gallery, 7 feet in height, deceased was struck and fatally injured by a mass of coal, 5'×4'×2'6", which fell from the side of a pillar from a height of 5 feet. Inspection and inquiry made.
107	20th April, 10-30 A.m.	Salem mine, Salem Junction P. O., Madras.	Magnesite Syndi- cate, Ltd.	Pachiamma, (f.), 20, Labourer.	Magne- site.	While several persons were dressing crude magnesite under the shade of a side of a disused quarry, a mass of earth 18'×13'×3' fell, killing one of them on the spot and seriously injuring another. Inspection and inquiry made.
108	25th April, 8 P.M.	Serampore mine, Giridin P. O., Bihar.	State Railway's Coal Department.	Nanku Meah, (m.), 35, Cool-cutter.	Coal	While deceased was engaged in cutting floor coal in a depillar- ing area, a mass of coal, 1'×1'×4' thick, fell from the side at a height of about 4 feet and struck him, causing serious injuries which proved fatal six months later. Inspection and inquiry made.
109	28th April, L P.M.	Bonga Munda mine, Chaibasa P. O., Bihar.	Sushil. Kumar Vanjo.	Champakin Hoe, (f.), 18, Labourer.	Chromite	Deceased left her appointed working place and went to work in an abandoned quarry, when a mass of side, 10'×8'×4' fell on her from a height of 8 feet, inflicting fatal injuries. Inspection and inquiry made.
110	30th April, 3-30 a, m.	Kustore mine, Kusunda P. O., Bihar.	Ranesgunge Coal Association, Ltd.	Budra Bilsspuri, (m.), 30, Skot-firer.	Coal .	After firing a shot deceased was dressing down loose coal from the side of a pillar under extraction, when a mass of coal, weighing about 2½ tons, fell on him from a concealed "slip" at a height of about 5 feet. He sustained serious injuries to which he succumbed 10 days later. Inspection and inquiry made.
111	lst May, 2-30 r.m.	Standard (Jharia Khas Sec.) mine, sharia P. O., Bihar.	Standard Coal Co., Ltd.	Kaila Bhuiya, (m.), 35, Louder.	Coal .	While deceased was carrying a basket of coal, a mass of coal, 1'3"×1'3"×1' thick, fell on himf rom a height of 18 feet. He sustained serious injuries to which he succumbed 4 days later. Inspection and inquiry made.
112	10th May, 6-30 A.M.	Dhemo Main mine, Sitarampur P. O., Bengal.	Dhemo Main Coal Co., Ltd.	Nasu Meah, (m.), 25; Razu Meah, (m.), 25; Guibadi Meah, (m.), 40; Loaders,	Cost .	While coal was being loaded from a depillaring area in a seam 12 feet thick, a severe "bump" occurred, causing large masses of coal to fall from the sides of pillars in an extensive area of the workings. Three coal loaders who were in a loading level 150 feet distant from the depillaring area, were killed by falling coal and two others were seriously injured. Inspection and inquiry made.

APPENDIX II-contd.

Serial Number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
			FALLS	OF SIDES—contd.		
113	24th May, 4-15 a.m.	Kustore mine, Kusunda P. O., Bihar.	Raneegunge Coal Association, Ltd.	Tulsi Dosadh, (m.), 52, Loader.	Coal	While deceased was travelling in a gallery 8 feet high in the vicinity of a depillaring area, a mass of coal, $25' \times 7' \times 2'$ thick, fell from the side of a pillar and atruck him, causing serious injuries which proved fatal 16 days later. Inspection and inquiry made.
114	28th May, 6-30 r.m.	Ramnagar mine, Kulti P. O., Bengal,	Bengal Iron Co., Ltd., (In voluntary Liquidation.)	Beni Singh, (m.), 30, Coal-cutter.	Coal .	While returning to his working place in a depillaring section, deceased was struck by a mass of coal, $9' \times 5' \times 2'$ 6"—1'6", which fell from a pronounced "cleat" in the side of a pillar. He was seriously injured and died one hour later. Inspection and inquiry made.
115	11th June, 2-30 p.m.	Jharia Khas mine, Jharia P. O., Bihar.	Standard Coal Co., Ltd.	Huru Gowala, (m.), 42, Loader.	Coal .	While deceased was loading coal in a gallery, 20 feet high, adjoining a depillaring area, a mass of side-coal, $10' \times 9' \times 2'$ thick, fell from a height of 17 feet and killed him instantly. Inspection and inquiry made.
116	12th June, 3-30 P.M.	Sitanala mine, Bhojudih P. O., Bihar.	Mohata Brothers .	Nanku Gope, (m.), 30, Loader.	Coal .	Deceased was fatally injured by a mass of coal, $5' \times 4' \times 6''$ , which fell from the side of a pillar at a height of 8 feet. Inspection and inquiry made.
117	13th June, 11 A.M.	Lodna mine, Jharia P. O., Bihar,	New Standard Coal Co., Ltd.	Sibu Bauri, (m.), 32, Coal-cutter.	Coal .	While deceased was cutting coal in a gallery 10 feet high, he dis- lodged a mass of coal, 3'×2'×6", which fell on him from a pronounced cleavage plane from a height of 5 feet. He sus- tained serious injurious which proved total 16 days later. Ins-

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A18	25th June, 10-30 A.M.	South Kujama mine, Jharia P. O., Bihar.	Bagdigi Kujama Collieries, Co.	Prayag Pasi, (m.), 35, Conl-cutter,	Coal .	While the side of a pillar in a depillaring area was mick, fell from down after blasting, a mass of coal, 6' × 3' 6" × 8' thick, fell from a "slip" in the side at a height of about 16 feet and struck deceased, killing him on the spot. Inspection and inquiry made.
	11th July, 2 P.M.	Bejdih mine, Sundarchak P. O., Bengal.	Equitable Coal Co., Ltd.	Delu Jeswar, (m.), 40, Coal-cutter.	Coal .	While deceased was drilling a shot-hole in roof coal in an under- ground gallery by standing on a ladder, a mass of coal, 8'×2'×2', fell from a concealed "slip" in the side, at a height of 11 feet. The coal struck the ladder, and deceased was thrown off. He sustained injuries to which he succumbed 24 hours later. Inspection and inquiry made.
20	20th July, 8-30 A.M.	Sripur (Nos. 1, 2 and 3 Pits) mine, Kalipahari P. O., Bengal.	Lodns Colliery Co. (1920), Ltd.	Pahlad Pasi, (m.), 36, Coal-cutter. Haro Mahato, (m.), 40, Loader.	Coal .	While a number of men was at work in a depillaring area, a severe "bump" occurred, dislodging several cogs and bars and causing a large mass of coal to fall from the side of a pillar. One man was killed instantly, one was seriously injured and four others sustained slight injuries, one of whom subsequently died. Inspection and inquiry made.
121	23rd July, 4-30 4. m.	Noonodih-Jitpur mine, Bhaga P. O., Bihar.		Dukhiram Satnami, (m.), 35, Coul-cutter.	Coal .	While resting in a gallery adjoining a depillaring area, deceased was struck and fatally injured by a mass of coal, 8'×4'×1' 6", which fell from the side of a pillar at a height of 5 feet. Inspection and inquiry made.
123	29th July, 12-15 r. z.	Kustore mine, Kusunda P. O., Bihar.	Rancegunge Coal Association, Ltd.	Dayaram Taili, (m.), 40, Coal-cutter.	Coal .	While deceased was engaged in loading fallen coal in a gallery 12 feet wide and 22 feet high in the immediate vicinity of a depillaring area, a mass of coal, weighing about 2 tons, fell from the side at a height of about 18 feet. He was injured by some pieces of coal and died 15 days later. Inspection and inquiry made.
323	2nd August, 2 a. m.	Serampore mine, Giridib P. O., Bihar.	State Railway's Coal Department.	Lillo Chamar, (m.), 28, Coal-culter.	Coal .	Deceased was carrying a backet of coal in a depillaring area, when a mass of stone, 3'×1'6"×1'6" thick, fell from the side of a pillar at a height of about 5 feet and struck him, inflicting fatal injuries. Inspection and inquiry made.
124	2nd August, 4 F. M.	190 Square Pros- pecting mine, Kodarms P. O., Bihar.	Chrestien Mining Co., Ltd.	Bisua Majhi, (m.), 35. Labourer.	Mica .	While working in a prospecting pit deceased was struck and fatally injured by a mass of schist which fell from the side.  Another person was seriously injured. Inspection and inquiry made.

APPENDIX II-conta.

Serlal Number.	Date and hour of accident.	Name and situation of muse.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
			FALLS OF S	DES-contd.		
125	3rd August, 11 A.M.	Dhawakhad mine, Jhumri-Telaiya P.O., Bihar.	Sheikh Rustom Ali.	Ganputia Bhuiya, (m.), 40; Titak Bhuiya, (m.), 25; Somra Dosadh, (m.), 39, Labourers.	Mica.	While at work in an open excavation the deceased were buried by a mass of earth, 20'×12'×2' thick, which fell from the side. They were dead when extricated. Another person was seriously injured.  Had the side of the excavation been properly sloped the accident would not have occurred. Inspection and inquiry made.
126	7th August,	Loyabad mine, Bansjora P.O., Bihar.	Burrakur Coal Co., Ltd.	Babulal Kole, (m.), 40, Coal-cutter.	Coal .	Deceased with several other persons was engaged in widening a gallery when a mass of coal, weighing about 2 tons, fell from the side at a height of 6 feet and fatally injured him. Inspection and inquiry made.
127	9th August, 4-30 ∆.m.	Katras-Choitodih mine, Katrasgarh P.O., Bihar.	Burrakur Coal Co., Ltd.	Somar Chamar, (m.), 30, Coal-cutter.	Coal .	Deceased was outting coal in a depillaring area, when a mass of coal, 5'×4'×1'6' thick, fell from the side from a height of 4 feet. He was struck and fatally injured and a loader was seriously injured. Inspection and inquiry made.
128	10th August, 5 a.m.	Jogta mine, Sijua P.O., Bihar.	Agabeg Brothers, Ltd.	Karu Bhuiya, (m.), 35, Londer.	Coal .	While at work in a depillaring area in a seam 26 feet thick, deceased was struck by a piece of coal, 2'6'×2'6"×1'6', which fell from the corner of a pillar. He succumbed to his injuries eleven days later. Inspection and inquiry made.
129	12th August, 0-15 A.M.	Banksimula mine, Charanpur P. O., Betikol.	Bengal Coal Co.,	Somer Mahato,	Coal	While filling coal in a depillaring area, deceased was killed by a fall of side, 2' × 1' × 1', which fell from a concealed "alip" at a bright of 16 feet. Important and imputes made

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30	12th August, 3 r.m.	Partelia mine, Necturia P. O., Bihar.	Benral Coal Co., Ltd.	Ratan Kumar, (m.), 30, Louder.	Coal .	While deceased was loading coal in a tub, a mass of coal, $3' \times 2' \times 1'$ , fell from the side of a piliar at a height of 9 feet. He was struck and killed instantly. Inspection and inquiry made.
13	14th August, 4 A.M.	Tisra mine, Jharia P. O., Bibar,	Arrareinh Gowa mal.	Agnu Mahato, (m.), 30, Pump-mon.	Coal	In a quarry, a large mass of side suddenly collapsed, burying deceased, who was working at a place 18 feet below. Inspection and inquiry made.
32	19th August, 8-30 P.M.	Lodna (Nos. 4 and 5 Pite) mine, Jharia P. O., Bihar,	Lodns Colliery Co. (1920), Ltd.	Sukhao Ruhidas, (m.), 50, Loader.	Coal .	While deceased was loading coal in a gallery, a mass of coal, $4' \times 3' 6' \times 1' 6''$ thick, fell from a concealed "slip" in the side at a height of 7 feet and struck him, causing serious injuries which proved fatal two months later. Inspection and inquiry made.
:33	26th August, 6 A.M.	Baragolai mine, Margherita P. O., Assam.	Assam Railwaya and Trading Co., Ltd.	Aswini Pal, (m.), 35, Mason.	Coal .	The brick walling and girders which supported the roof of a main baulage road were being replaced by steel arching. While the packing over the old walling was being taken out, about half a ton of stone fell from the side on to the packing above the new arching, and a piece weighing about 3 cwts. struck a brick-layer who was working on a platform, which spanned a gap of 4 feet between the old brick walling and the new steel arching. He was fatally injured. Inspection and inquiry made.
184	28th August, 10 A.M.	Bindubagh mine, Hindubagh P. O., Baluchistan.	Baluchistan Chrome Co., Ltd.	Noor Mohd. (m.), 27, Labourer.	Chromite	Deceased was working in a quarry, when a mass of stone, weighing about a ton, fell on him from an adjoining "beach" inflicting fatal injuries.
135	6th September, 10-30 A.M.	Poidib mine, Sundarchak P. O., Bengal.	Bengal Coal Co., Ltd.	Gyain Mondal, (m.), 38, Loader.	Coal .	While a miner was robbing coal from the side of a barrier a mass of coal, 24'×8'×1', unexpectedly fell from a pronounced cleavage plane, killing him instantly. Inspection and inquiry made.
136	20th September, 4 r.m.	Lakhanpur mine, Shankergarh P. O., United Provinces.	L. P. Pandey & Sona.	Baisakhu, (m.), 40, Labourer.	Stone .	While deceased was working in an open excavation, 14 feet deep, a mass of stone, 3'×2'×1' fell from the side of the excavation. He sustained injuries which proved fatal 46 hours later. Inspection and inquiry made.
337	26th September, 11-30 A.M.	Egarcoor mine, Chirkunda P. O., Bihar.	Durgamata Coal	Kripal Bauri, (m.), 45, Coal-cutter.	Coal .	Unknown to the management deceased entered a quarry and was cutting coal in a part which was fenced off when a mass of earth, 5'×5'×3', fell from the side and buried him. He died from suffocation before he could be extricated. Inspection and inquiry made.

Serial Number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	
	***************************************		FALLS OF S	IDES—contd.		
138	13th October, 2 P.M.	New Damagoria mine, Salanpur P. O., Bengal.	New Damagoria Coal Co., Ltd.	Shodin Gorin, (f.), 32, Loader.	Coal .	While loading coal at the bottom of a bench in an open working deceased was struck and killed instantly, by a mass of coal 12'×2'×3', which was unexpectedly dislodged by a miner from the edge of the bench. Inspection and inquiry made.
139	14th October, 4-45 P.M.	Gulfartari mine, Mugma P. O., Bihar.	Burn & Co., Ltd.	Gobinda Majhi No. 2, (m.), 29, Coal-cutter.	Coal .	While at work in a gallery, which was passing through faulty ground, deceased was struck and killed instantly by a mass of coal and stone, measuring about 6'×4'×1'6", which fell from a concealed "cleat". Inspection and inquiry made.
140	17th October, 11-30 A.M.	Ratibaty mine, Kalipahari P. O., Bengal.	Ratibaty Collieries, Ltd.	Bhonda Bauri, (m.), 36, Loader.	Coal .	While deceased was filling a basket with coal in a depillaring area a mass of coal $3' \times 2' \times 1'$ , fell on him from the side of a pillar at a height of 13 feet. He was killed instantly. Inspection and inquiry made.
141	17th October, 1-30 p.m.	Ghugus mine, Maneckpur P. O., Central Provinces.	Ballarpur Collicries Co.	Sogla Ramdu, (m.), 55, Coal-cutter.	Coal .	While dressing down coal blasted from the side of a pillar deceased was struck and fatally injured by a mass of side coal, 3'×2' 6"×1' 3" thick, which fell from a concealed "slip" at a height of 5 feet. Inspection and inquiry made.
142	25th October, 9-30 P.m.	Standard (Jharia Khas) mine, Jharia P. O., Bihar.	Standard Coal Co., Ltd.	Durga Kachhi, (m.), 35, Caal-cutter,	Coal .	While dressing a piece of loose coal, from the side of a pillar, deceased dislodged a mass of coal, 5'×5'×1', which fell on him from a height of 6 feet. He was killed instantly. Inspection and inquiry made.
143	28th October, 1-30 r.m.	South East Baraboni mine, Charanpur P. O.,	Maharaja S. C. Nandi.	Banku Mallik, (m.), 32, Coat-cutter.	Cosl .	In a depillaring area, a mass of coal, unexpectedly fell from the side of a "stock" under extraction, and dislodged a prop. 16 feet long, which struck doceased and killed him instantly Inspection and injury made.

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144	let November, Not known.	Banderchua mine, Mugma P. O., Bihar,	South West Begu- nia Coal Co.	Niamat Knan. (m.), 45, Owner & Miner.	Coal .	Deceased undercut the side of a quarry when a mass of stone, measuring 5'×3'×2', fell from a height of 3 feet and killed him instantly. Inspection and inquiry made.
145	24th November, 8-45 a.m.	Munsar mine, Kandri P. O., Central Provinces.	Central Provinces Manganese Ore Co., Ltd.	Salik Teli, (m.), 25, Miner.	Manga- nese.	Deceased was attempting to lever down a piece of rock in an open-cast working, when a mass of stone, 3'×2'6"×6", suddenly fell from a concealed "slip", causing him to fall into an excavation, 6 feet deep. He sustained serious injuries which proved fatal 15 hours later. Inspection and inquiry made.
146	3rd December, 11-30 r.m.	Dhemo Main mine, Sitarampur P. O., Bengal.	Dhemo Main Collieries, Ltd.	Birinchi Dosadh, (m.), 40; Bhagati Chamar, (m.), 32; Jatri Dosadh, (m.), 36, Trammers. Kali Majhi, (m.), 45, Louder.	Coal	While a number of transmers and loaders was at work in a gallery, a severe "bump" occurred, causing a mass of coal, weighing about 200 tons, to fall from the side of a pillar. Three of the transmers and one loader were buried by the falling coal and killed instantly, and another loader was seriously injured. Inspection and inquiry made.
147	6th December, 3 a.m.	Central Kurkend mine, Kusunda P. O., Bihar.	Central Kurkend Coal Co., Ltd.	Puran Roy, (m.), 35, Coal-cutter.	Coal .	While loading coal in a gallery deceased was struck and seriously injured by a mass of coal weighing about 1/3 cwt., which fell from the side of a pillar at a height of 6 feet. He succumbed to his injuries 37 days later. Inspection and inquiry made.
148	9th December, 2 P.M.	Chasnells mine, Pathardih P. O., Bihar.	Indian Iron & Steel Co., Ltd.	Bhagan Majhi, (m.), 24, Coal-cutter.	Coal .	While deceased was filling his basket with coal in a gallery, a mass of coal, 5'×4'×2' thick, fell from a cleavage plane in the side at a height of about 6 feet and struck him. He sustained serious injuries which proved fatal about two months later: Inspection and inquiry made.
140	9th December, 3-30 r.m.	Pure 'haris mine, Jharia P. O., Bihar.	Pure Jharia Colli- ery Co.	Dhanpatia Bhulya, (m.), 23, Loader.	Coal .	While a loader was filling a backet with coal in a depillaring area a mass of coal weighing about 5 cwt., fell from the corner of a pillar. He sustained minor injuries, but died from shock 7 hours later. Inspection and inquiry made.
180	9th December, 0-30 r.m.	Dhori mine, Bokaro P. O., Bihar,	Bokaro & Ramgur, Ltd.	Kanik Mahato, (m.), 38, Coal-cutter.	Coal .	Deceased was killed by a mass of coal $4' \times 2'$ $6'' \times 3'$ , which fell on him from a concealed "slip" in the side of a pillar.

Serial Number.	Date and hour of acoident.	Name, and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
181	29th December, 9 A.M.	Jambad Selected mine, Kajoragram P. O., Bengal.	FALLS OF SI Devji Ghelabhoi & Bros.	DES—concid.  Karamat Bilaspuri, (m.), 35,  Coal-cutter.	Coal .	While deceased was engaged in deepening a drain in the bed of a quarry, a mass of coal, 15'×10'×4', fell from a "slip" in the side. He was killed on the spot. Inspection and inquiry made.
152	31st December, 3-45 r.m.	East Ena mine, Jharia P. O., Bihar.	East Ena Colliery Co., Ltd.	Manga' Majhi, (m.), 32. Loader.	Coal .	While roof coal was being cut in a gallery, a mass of coal, 1'6"×1'6"×14', fell from the side and upset a wooden platform, which struck deceased, who was sitting in the gallery. He sustained serious injuries which proved fatal four months later. Inspection and inquiry made.
153	31st December, 8 P.M.	Standard mine, Jharia P. O., Bihar.	Standard Coal Co., Ltd.	Hossain Bux, (m.), 45, Coal-cutter.	Coal .	While the side of a pillar was being dressed down after blasting, a mass of coal, 3'×2'×1'6" thick, fell from the side at a height of about 18 feet and dislodged a porp, which atruck deceased and killed him on the spot. Inspection and inquiry made,
			In shaft (Overwinding)→(I death).			_
154	27th April, 3 r.m.	Victoria mine, Kulti P. O., Bengal.	New Beerbhoom Coal Co., Ltd.	Fuchia Meah, (m.), 44, Labiturer.	Coal .	In the absence of the winding engineman an engine cleaner, who was not authorised operated the winding engine and caused an overwind. There were thirteen persons on the descending cage end owing to the force with which the latter struck the shaft bottom six of the occupants were seriously injured one of whom subsequently died. Inspection and inquiry made.

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156	17th March, 5 F M.	Bejdib mine, Sundarohak P. O., Bengal.	Equitable Coal Co., Ltd.	Jogan Singh, (m.), 32, Coal-culter.	Coal .	While a cage containing twelve persons was being lowered in a shaft, 1,083 feet deep, the cage struck the side of the shaft and caused a miner to be thrown out. He fell to the bottom of the shaft and was killed instantly. Inspection and inquiry made.
	,		processing the second	· •		
1			In shafts (falling do	on shaft)(6 deaths).		*
156	Srd February, 5 P.M.	Dahrali mine, Kodarma P- O., Bihar,	Hazaribagh Mica Mining Co., Ltd.	Rowal Singh, (m.), 30, Carpenter.	Mics	While deceased was engaged in fixing a timber set at the top of a shaft, 20 feet deep, the set broke and he fell with the timber to the bottom of the shaft. He received serious injuries which proved fatal 3 hours later. Inspection and inquiry made.
167	16th February, 8-30 A. M.	Saltore mine, Dishergar P. O., Bengal.	Burrakur Coal Co., Ltd.	Kalor Mahato, (m.), 45, Labourer.	Coal .	When a cage containing eight persons was about to be lowered in a shaft, 525 feet deep, the banksman released the kep lever too soon with the result that the top band of the cage struck the keps a glancing blow, and caused the cage to awing in the shaft. Deceased was thrown out of the cage and fell to the shaft bottom and was killed instantly. Inspection and inquiry made.
168	7th June, 1 z. m.	Jainty Central mine, Karmatar P. O., Bihar.	Jainty (Central) Colliery, Ltd.	Karamali Meah, (m.), 40, Lobourer.	Coal ,	When about to step into a cage at an intermediate landing of a shaft, deceased fell down the shaft from a height of about 40 feet and was fatally injured. Inspection and inquiry made.
159	22nd July, 9-15 A. M.	Standard (Jharia Khae) mine, Jharia P. O., Bihar.	Standard Coal Co., Ltd.	Rambhajan Mallah (m.), 34, . Labourer.	Coal .	A gang of four persons was riding on the top of a cage and descending a shaft to examine a bunton, when a wedge shaped piece of stone fell from the side of the shaft; striking some of them. Deceased fell to the bottom of the shaft a distance of 80 feet and was killed instantly. Another person was seriously injured. Inspection and inquiry made.
160	11th November, 4-30 A. M.	Standard (Jharia Khas) mine, Jharia P. O., Bihar.	Standard Coal Co., Ltd.	Jagan Doeadh, (m.), 60, Labourer.	Coal .	While repairing the signal wire in a shaft, 395 feet deep, deceased fell from the top of a cage through a distance of about 50 feet and was killed.  Had a safety belt been used, this accident would have been avoided. Inspection and inquiry made.

Serial B"mher.	Date and hour of socident.	Name, and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
	,		In shafts (falling d	own shaft)—(6 deaths	-contd.	
<b>161</b>	26th December, 5 P. M.	Masudpur mine, Delhi Pottery P.O., Delhi.	Delhi Pottery Works, Ltd.	Harnam Julia, (m.), 60, Labourer.	Clay .	Deceased fell into a discontinued shaft, 57 feet deep. He sustained injuries and died shortly afterwards.  If the shaft had been securely fenced the accident would have been avoided. Inspection and inquiry made.
162	30th March, 2-30 P. m.	Loyabad mine, Bansjora P. O., Bihar.	Burrakur Coal Co., Ltd.	Guran Mehato, (m.), 28, Timberman.	Coal .	Deceased was engaged in removing props' from a cage which had been lowered to the bottom of a shaft, 300 feet deep, when a piece of stone, fell from the side of the shaft. He sustained serious injuries to which he succumbed 4 days later. Inspection and inquiry made.
163	2nd September, 11 P. M.	Kirkend mine, Kusunda P. O., Bihar.	Kirkend Coal Co.	Barhan Kurmi, (m.), 42, Onsetter.	Coal	Deceased was about to pull an empty tub from a cage standing at the bottom of a shaft, 475 feet deep, when he was struck and fatally injured by a piece of stone which, it is presumed, fell from the side of the shaft. Inspection and inquiry made.
164	lst May, 4 P. M.	West Ena mine, Jharia P. O., Bihar.	West Ena Colliery Co.	Damri Meah, (m.), 55; Trammer.	Coal	While a trammer was attempting to push a loaded tub out of a cage which was not resting properly on the keps, the cage suddenly destended and he was crushed between the roof of the cage and the landing platform. He died from injuries shortly afterwards. Inspection and inquiry made.
165	loth December,	Fagooni mine, Rajauli P. O., Bihar,	Chatturam Dar- sanram.	Bhatu Shaw, (m.), 30, Driller.	Mica .	While descending a ladder, deceased slipped and fell through a distance of 10 feet. He sustained injuries to which he succumbed shortly afterwards. Inspection and inquiry made.

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168	18th October, 7 A. M.	Murulidih mine, Mohuda P. O., Bihar.	Bengal Coal Co., Ltd.	Naudiel Turi, (m.), 45, Sivaar.	Coal	A sirder left his safety lamp on the surface and returned underground for an inspection, when he was sufficiently an accumulation of fire-damp in a gallery. Inspection and inquiry made.
		•	BY EXPLO	SIVES—(14 deaths).		
167	7th January, 3-30 p.m.	Barkui mine, Parasia P. O., Central Provinces.	Pench Valley Coal Co., Ltd.	Asaram Bhoyar, (m.), 35, Coal-cutter.	Coal	While four shots were being fired in the face of his gallery a miner was deputed to guard one of the two entrances to the place. He returned to the gallery before all shots had exploded and was struck and fatally injured by pieces of coal when the fourth shot exploded.  He should not have returned until the gallery had been examined by the shot-firer and declared safe. Inspection and inquiry made.
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168	17th January, 1-30 r.m.	Chittingburn mine, Chaibasa P. O., Bihar.	Singhbhum Chro- mite Co., Ltd.	Pallo Kui (alias Laru), (f.), 18, Laboures.	Chro- mite.	Deceased was struck on the head and fatally injured by a piece of stone projected during blasting in an openeast working.  Inspection and inquiry made.
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169	19th July, 12 moon.	Para mine, Kekri P. O., Rajputana,	Labh Chand & Co.	Kela Kahar, (m.), 30, Labourer.	Mica ".	While a number of persons was employed in removing debris after blasting in a quarry, a missfired shot was exploded. One person was fatally injured and another sustained serious injuries. Inspection and inquiry made.
170	28th July, il a.m.	Navakhera mina, Brawar P. O., Rajputana,	Ramballabh Agar- wal.	Panna Uda, (m), 16; Bhura Chatra, (m.), 25, Labourers.	Mica.	A shot-firer handed over half a pound of loose gunpowder to an underground labourer, who wrapped it in a paper and sarried it to his working place, where it became ignited from an oil lamp. Of the four persons who were in the vicinity, two were fatally burnt and two seriously.  The accident would not have occurred if the Regulations for shot-firing had been observed. Inspection and inquiry made.

Sorial Bumber.	Date and hour of accident.	Name, and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Gause of accident and remarks.
			BY EXPLOSI	VES—(14 deaths)—co	mid.	
171	11th August, 8-30 A.M.	Minpur mine, Buniadganj P. O., Bihar.	Jogeshwar Ram	Munni Ram, (m.), 20, Driller.	Stone .	Deceased went to his working place in a quarry where a shot had hung fire and was within 10 feet of the shot when it exploded. He sustained serious injuries which proved fatal shortly afterwards. Inspection and inquiry made.
172	14th August, 6 P.M.	Kalithan Jinagora mine, Jharia P. O., Bihar.	K. B. Scal & Sons	Rishoo Hari, (m.), 34, Coal cutter.	Coal .	During blasting operations in an open working, a piece of stone was projected a distance of 375 feet and struck deceased. He succumbed to his injuries seventy six days later. Inspection and inquiry made.
173	16th August, 5-30 p.m.	Khudi No. 2 mine, Tisri P. O., Bihar.	Indian Mica Supply Co., Ltd.	Kartik Modhi, (m.), 29, Shot-firer.	Mica .	Deceased returned to an underground drive where a shot hung fire, and on reaching place of blasting the shot exploded, killing him instantly. Inspection and inquiry made.
174	31st August, 5 a.m.	Sugwa mine, Jhumri-Telaiya P. O., Bihar.	Chatturam Horil- ram, Ltd.	Anup Musahar, (m.), 30, Shot-firer.	Mica .	Deceased was engaged in lighting the fuses of five shots in an underground drive, experienced difficulty in lighting the last fuse and delayed too long. Before he could escape, some of the shots exploded and he sustained serious injuries to which he succumbed 14 days later. Inspection and inquiry made.

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178	20th September, 8 A.M.	Banksimule mine, Charanpur P. O., Bengal.	Bengal Coal Co. Ltd.	Drologan Singh, (m.), 38, Shot-firm.	Coal .	After lighting three shots, deceased lost his light, and while another light was being brought to him the shots explode, and he sustained injuries to which he succumbed a day later. Inspection and inquiry made.
176	12th October, 1 r.m.	Pars mine, Kekri P. O., Rajputana.	Labhchand & Co.	Dhsppoo, (f.), 16, Labourer.	Mics .	During blasting operation in an opencast working a projected stone weighing about 10 lbs. struck and killed deceased while she was sleeping in a temporary hut, 116 feet away.  Inspection and inquiry made.
177	13th Nevember, 2 r.m.	Madhuband mine, Nudkhurkee P. O., Bihar.	Karamchand Thapar & Bros., Ltd.	Somero Gowala, (m.), 30; Bajrangi Dhobi, (m.), 45, Loaders.	Coal .	After lighting the fuse of a gunpowder shot placed in the side of a pillar, a ladder was being removed, when the charge exploded. A mass of coal 4'×4'×2' thick, fell from the side at a height of 10 feet, inflicting fatal injuries on deceased. Another loader was seriously injured and died a month later. Inspection and inquiry made.
178	9th December, 10 a.m.	Jalia Second Bas Pitha mine, Nasirabad P.O., Rajputana.	Goverdhallal Rathi	Hadda, (m.), 25, Shot-firer.	Mics	While two men were attempting to remove a missifred charge of gunpowder from a shot-hole, it exploded, killing one man instantly and seriously injuring the other.  The socident would have been avoided if they had observed Metalliferous Mines Regulations. Inspection and inquiry made.
	•		IRRUPTION	OF WATER-(1 deal	tλ).	.,
179	30th April, 2 r.m.	Korrabad Nodia mine, Churulia P. O., Bengal.	Colleries, Ltd.	Gancah Kora, (m.), 47, ( coal-cutter.  AGE-(38 deaths).	Coal	Deceased was preparing to drill a hole in a gallery, to connect with a water-logged gallery on the rise side, when a thin rib of coal between the two galleries collapsed. Deceased was carried some distance by the inrush of water and sustained fatal injuries. Inspection and inquiry made.
190	12th January, 5 A.M.	Digwadih mine, Jealgora P. O., Bihar.	Tata Iron & Steel Co., Ltd.		Cosl .	Decessed was knocked down and fatally injured by a set of 16 loaded tubs which was being lowered down a haulage plansdipping at 1 in 30. Inspection and inquiry made.
191	13th January, 4 p.m.	Sripur (Nos. 1, 2 & 3 Pits) mine, Kalipabari P. O., Bengal.	Lodna Colliery Co. (1920), Ltd.	Jogo Dosadh, (m.), 30, Clipman.	Coal	While deceased was accompanying the first tub of a loaded rake, on an endless haulage road, the tub got derailed and he was crushed between the tub and a prop set close to the track. He was killed instantly. Inspection and inquiry made.

Serial Number.	Date and hour of accident.	Name, and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
			HAULAGE—(	38 deaths)—contd.		
182	23rd January, 0-40 a.m.	Bejdih mine, Sundarchak P.O., Bengal.	Equitable Coal Co., Ltd.	Sidique Sheikh, (m.), 38, Set-rider.	Coal .	Two set-riders and an overman were riding on a trolley attached to the front of a train of loaded tubs, which was being hauled up a road with a gradient of 1 in 5, when due to an overlap of the rope on the haulage drum, all three men were jerked off the trolley. Deceased was run over and killed instantly. Inspection and inquiry made.
183	23rd January, 7 A.M.	Dhemo Main mine, Sitarampur P. O., Bengal.	Dhemo Main Coal Co., Ltd.	Alu Meah, (m.), 32, Coal-cutter.	Coal .	Deceased was riding on a set of loaded tubs being raised up a haulage road when he was thrown off and fatally injured.  He was not authorised to ride on the set. Inspection and inquiry made.
184	6th February, 3 p.m.	Bhulanbararee mine, Pathardih P. O., Bihar.	Bhulan bararee Coal Co., Ltd.	Brij Singh, (m.), 32, Loader.	Coal	While deceased was walking on a haulage road he lost his light and was struck and fatally injured by a set of loaded tubs which was being lowered down the haulage road. Inspection and inquiry made.
185	14th February, 5 P.M.	South Bulliari- Kendwadih mine, Kusunda P. O., Bihar.	East Indian Coal Co., Ltd.	Bhola Singh, (m.), 39. Trolleyman.	Coal .	A loaded tub which had been spragged was being lowered down a road dipping at 1 in 12, when it collided with another stationary loaded tub and was derailed. Deceased was caught between the two tubs and fatally injured. Inspection and inquiry made.
186	lst March, 11-30 A.M.	Sitalpur mine, Ukhra P. O., Bengal.	Sitalpur Coal Co., Ltd.	Hiralal Paharia, (m.), 30, Loader.	Coal .	While a set of four empty tubs was being lowered down a level, deceased walked unobserved on to the level and was crushed between the emptice and five stationary tubs. He sustained injuries to which he succumbed 15 hours later. Inspection and inquiry made.

197	25th March, 4 4.m.	Jamuria mine, Charanpur P. O., Bengal.	Equitable Coal Co., Ltd.	Budh Meah, (m.), 28, Labourer.	Coal	While deceased was citting on the scating of a haulage engine underground, the rope holding the tension bogie to the balance weight became detached from the bogie, and caused the latter to run forward. The bogie struck deceased and fatally injured him. Inspection and inquiry made.
168	25th April, 7-45 r.m.	Kustore mins, Kusunda P. O., Bihar.	Rancegunge Coal Association, Ltd.	Gopi Bhuiya, (m.), 40, Loader.	Coal .	While a set of 5 loaded tubs was being hauled up a gardient of 1 in 4, the rope broke and the tubs ran wild down the haulage road. They collided with and overturned a stationary tub which in turn struck and fatally injured deceased, who was loading coal into a tub placed on the main haulage road. Inspection and inquiry made.
189	26th April, 2 a.m.	Barmondia mine, Sitarampur P. O., Bengal.	New Beerbhoom Coal Co., Ltd.	Mongal Bauri, (m.), 36, Trammer.	Coal	While assisting two other persons to re-rail a loaded tub at a haulage curve a trammer stood between the tub and a side wall. The tub overbalanced and crushed him against the wall and he sustained injuries which proved fatal 14 hours later. Inspection and inquiry made.
190	4th May, 8-30 a.m.	Standard (Jharia Khas Sec.) mine, Jharia P. O., Bihar.	Standard Coal Co., Ltd.	Suku Meah, (m.), 50, Door-attendant.	Coal .	While a set of loaded tubs was passing through a door, deceased lost control of a wire used for opening it. The door was struck by the set and when he stepped forward to pull the door back, his right leg was caught by the tubs and fractured. He died of shock four hours later. Inspection and inquiry made.
191	9th May, 0-15 a.m.	Bhurkunda mine, Bhurkunda P. O., Bibar.	State Railways' Coal Department.	Raghu, (m.), 48, Coal-cutter.	Coal .	A set of 6 empty tubs which was being lowered down a haulage road dipping at 1 in 6 collided with another set of 11 empty tube standing on the haulage road and resulted in the derailment of one of the stationary tube. The derailed tub struck deceased who was travelling on the haulage road. He was killed instantly. Inspection and inquiry made.
102	24th May, 10-15 a.m.	Newton Chickli mine, Parasis P. O., Central Pro- vinces.	Newton Chickli Collieries, Ltd.	Chatu Kirar, (m.), 30. Loader.	Coal .	While a set of ten loaded tubs was being lowered down a road dipping at 1 in 60, the first four tubs became uncoupled, ran uncontrolled, and collided with two empties which were being pushed inbye. Deceased, who was pushing the leading empty tub, sustained serious injuries and died six hours later. Inspection and inquiry made.
193	27th May, 8:30 P.M.	Bokaro mine, Bokaro P. O., Bihar.	East Indian Railway and Bengal Nagpur Railway.		Conl .	While a side tipping tub was being re-railed the body over- turned and struck a trammer on his head. He succumbed to his injuries 10 hours later. Inspection and inquiry made.

Serial Number.	Date and honr of accident,	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remark.
<del>-</del>			HAULAGE	—(38 deaths)—contd.		
194	30th May, 9-30 A.M.	Ajita mine, Monoharpur P. O., Bihar,	Bengal Iron Co., Ltd. (In voluntary Liquidation.)	Ladhu Tamaria, (m.), 30, 2 rammer.	Iron ore.	Deceased was assisting to break a set of ten loaded tubs being lowered down a gradient of 1 in 100, by means of a pole when he slipped and one of the tubs ran over his foot, resulting in serious injuries. He developed Cholera and died 11 months after the accident. Inspection and inquiry made.
195	12th June, 9 A.M.	Parbelia mine, Necturia P. O., Bihar,	Bengal Coal Co., Ltd.	Fagu Majhi, (m.), 62, (loal-cutter.	Coal	While walking along an underground tramming level, with a gradient of 1 in 40, deceased stepped in front of a loaded tub which was gravitating down. He was seriously injured and died three days later. Inspection and inquiry made.
196	3rd July, 7 a.m.	Sirka mine, Argada P. O., Bihar.	South Karanpura Coal Co., Ltd.	Gurbux Singh, (m.), 35, Munshi.	Coal .	A set of tubs was being hauled round a curve when some of the tubs became derailed and the haulage rope displaced a guide pulley. The rope struck deceased who sustained serious injuries to which he succumbed a fortnight later.
197	10th July, 12 noon.	Kustore mine, Kusunda P. O., Bihar.	Raneegunge Coal Association. Ltd.	Phadru Satnami, (m.), 30, Louder.	Coal .	While four empty mine cars were being shunted on a slope of 11 in 10 two of them became uncoupled and ran amain. The leading car became derailed and knocked down a wooden cog, which struck deceased, inflicting fatal injuries. Inspection and inquiry made.
198	15th July, 11 A.M.	Ramnagar mine, Kulti P. O., Bengal.	Bengal Iron Co., Ltd (in hauida- tion).	Shambhu Mahaly, (m.). 38, Trammer.	Coal .	While derailed tubs were being rerailed on a haulage road with a gradient of 1 in 15, deceased was signalling from a narrow portion of the road. When the tubs were set in motion one of the derailed tubs tilted and struck him, inflicting fatal injuries. Inspection and inquiry made.

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199	23rd July, 10-15 A.M.	Baragolai mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Gancowar Taluk- dar, (m), 35, Trammer.	Coal .	A trammer was struck and killed instantly by a loaded tub which "ran wild" down a self-acting incline having a gradient of 1 in 2. Deceased had failed to attach the rope to the empty tub at the bottom, and also failed to get clear from the bottom of the incline. Inspection and inquiry made.
; <b>200</b>	8th August, 2 r.m.	S. E. Baraboni Khas mine, Charanpur P. O., Bengal.	Maharaja S. C. Nandy.	Dugai Majhi, (m), 47, Loader.	Coal .	Deceased with several other persons was waiting for empty tube at the entrance to a level off a haulage road with a gradient of 1 in 35 when a full tub which was being trammed along the level became derailed and overturned on to him. He sustained injuries which proved fatal two days later. Inspection and inquiry made.
; <b>2</b> 01	13th August, 12-30 A.M.	Methani mine, Sitarampur P. O., Bangal.	Equitable Coal Co., Ltd.	Matla Majhi, (m), 42, Coal-cutler.	Coal .	Deceased was knocked down by a tub gravitating down a gradient of about 1 in 20, and sustained injuries to which he succumbed ten days later. Inspection and inquiry made.
202	29th August, ,12-30 A.M.	Sripur (Nos. 1, 2 & 3 Pits) mine, Kalipahari P. O., Bengal	Lodns Colliery Co. (1920), Ltd.	Birbal Chamar, (m), 28, Coal-cutter.	Coal .	While deceased was working on a haulage road, dipping at 1 in 14, a loaded tub ran away and killed him on the apot. Inspection and inquiry made.
.203	4th September, 11-30 A.M.	North Damuda mine, Nudkhurkee P. O., Bihar.	Shankerlal Agar- wala.	Jotin Ojha, (m), 40, Trammer.	Coal .	While a set of thirteen empty tubs was being lowered down an incline dipping at 1 in 4, the leading tub became uncoupled and ran amain. After having travelled a distance of about 300 feet, it struck deceased, who was halting at the entrance to a level. He succumbed to his injuries half an hour later. Inspection and inquiry made.
204	6th September, 6 a.M.	Bejdih mine, Sundarchak P. O., Bengal.	Equitable Coal Co., Ltd.	Bigon Ram Kahar, (m), 40, Trummer.	Coal .	While a set of nine leaded tubs was being hauled up a haulage road, dipping at 1 in 6, a coupling chain broke and eight tubs ran amain. Deceased who was travelling up the haulage road, was struck by the runaway tube and received injuries to which he succumbed twentyfive days later. Inspection and inquiry made.
206	15th September, 3-30 r.m.	Mudidib mine, Sijua P. O., Bihar.	Burrskur Coal Co., Ltd.	Juhraj Bhuiya, (m.), 30, Trammer.	Coal	A set of ten loaded tubs was being hand-shunted on a road, dipping at 1 in 100, when the buffers of the first two tubs got inter-locked. While deceased was assisting to release them, they were bumped by tubs in the rear and overturned killing deceased instantly. If suitable levers had been used the accident would have been avoided. Inspection and inquiry made.
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Serial	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
. <b>2</b> 06	18th September, 6-45 P.M.	Datla mine, Junnordeo P. O., Central Provinces.	HAULAGE—(3 Amalgamated Coalfields, Ltd.	8 deaths)—concid.    Basori Katia, (m.), 28, Trammer.	Coal .	While a set of seven loaded tubs was being hauled up a gradient of 1 in 5, the rope broke. The drag derailed the tubs after running back a short distance. Deceased, who was following the set, was caught by the tubs and killed on the spot. Inspection and inquiry made.
207	20th September, 3-30 r.m.	Dhemo Main mine, Sitarampur P. O., Bengal.	Dhemo Main Collieries, Ltd.	Naru Hazra, (m.), 35, Labourer.	Coal .	While a set of twelve empty tubs was being lowered down a haulage plane, the leading tub became uncoupled, and "running wild" struck deceased, who was crossing the plane further to the dip, fatally injuring him. Another labourer was seriously injured. Inspection and inquiry made.
208	3rd October, 7-30 A.M.	Sectalpore mine, Dishergarh P. O., Bengal.	Bengal Coal Co., Ltd.	Ramekbal Muchi, (m.), 28, Timberman.	Coal .	While a train of six empty tubs was being lowered down a haulage road dipping at I in 4, the two leading tubs got derailed. Deceased, who was standing near the entrance to a tramming level, was struck and fatally injured. Inspection and inquiry made.
209	3rd October, 4-30 r.m.	Poidih mine, Sundarchak P. O., Bengal.	Bengal Coal Co., Ltd.	Chapal Bauri, (m.), 25, Labourer.	Coal .	While deceased was engaged in oiling the return pulley of a surface endless haulage, the rope started. He was caught between the rope and the pully and received serious injuries which proved fatal 2 hours later. Inspection and inquiry made.
210	8th October, 4 P.M.	West Gopalichuck mine, Kusunda P. O., Bihar.	Central Kurkend Coal Co., Ltd.	Nathu Rajwar, (m.), 30, Trolleyman.	Coal .	Deceased was riling on a loaded tub which was being drawn up a haulage road rising at 1 in 6, when the tub became derailed. He was thrown against a pillar and fatally injured. Inspection and inquiry made.

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<b>2</b> 11	14th October, 8-30 P.M.	Jamadora mine, Jealgora P. O., Bihar.	Tata Iron & Steel Co., Ltd.	Chatta Turi, (m.), 48, Line Mistry.	Coal .	Deceased was standing on a haulege road while a set of mine cars was being lowered by a locomotive. He was knocked down by the front car and killed instantly. Inspection and inquiry made.
212	18th October, 4 a.m.	Lodna mine, Jharia P. O., Bihar.	North Burrakur Coai Co., Ltd.	Baku Majhi, (m.), 40, Loader.	Coal .	While deceased was hand-shunting an empty tub on a tramming level, two loaded tubs, which were being trammed on the next line, bumped against a stationary loaded tub causing a lump of coal, about 10 lbs. in weight, to fall on his left leg. He sustained serious injuries and tetanus supervened resulting in his death eight days later. Inspection and inquiry made.
213	21st October, 1-30 a.m.	Malkera-Choi to di h mine, Katrasgarh P. O., Bihar.	Co., Ltd.	Ramshebak Panday, (m.), 48, Laboures.	Coal .	While a set of five loaded tubs was being hauled round a curve of an underground haulage road, dipping at 1 in 7, the front two tubs derailed, and caused the haulage rope to slip off a bevel pulley. Deceased who was standing on the curve was struck by the rope and sustained fatal injuries. Inspection and inquiry made.
214	31st October, 3 r.m.	Kurhurbaree mine, Giridih P. O., Bihar.	State Railways' Coaf Department.	Khiroo Koiri, (m.), 45, Coal-cuiter.	Coal .	A set of 24 loaded tubs was being lowered on aprags down a road with a gradient of 1 in 8 to 28, when the front three tubs got derailed at a crossing. Deceased, who was travelling on the haulage road, was struck and fatally injured by the derailed tubs. Inspection and inquiry made.
215	15th November, 7 r.m.	Methani mine, Sitarampur P. O., Bengal.	Aldia Coal Co., Ltd.	Sankar Chandra Dutta, (m.), 22, Pump-man.	Coal .	While a set of eight loaded tubs was being drawn up a haulage plane, the coupling between the second and third tubs broke, and six tubs ran wild striking two pump-men, fatally injuring one and seriously injuring the other. Inspection and inquiry made.
210	22nd November, 3 s.m.	Sendra mine, Bansjora P. O., Bihar.	Sendrs Coal Co., Ltd.	Harku Chamer,	Coal .	While two empty tubs were being lowered down a haulage plane dipping I in 2.5 they became derailed. The leading tub became uncoupled, ran wild for a distance of 350 feet and struck two haulage attendants, killing one instantly and seriously injuring the other. Inspection and inquiry made.
2)7	10-30 A.M.	Chanch mine, Chirkunda P. O., Bihar.	Bengal Coal Co., Ltd.	Basoo Meah, (m.), 20, Latourer.	Coal .	A loaded tub, which had been spragged, was presumably set in motion down a tramming road dipping at 1 in 40. The tub collided with a ventilation door, which struck deceased, inflicting serious injuries to which he succumbed five days later. Inspection and inquiry made.

Serial Numbor.	Date and hour of socident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
	· .	BY UNDE	RGROUND MACHIN	NERY—(1 death).	]	
218	18th April,	Banksimula mine, Charanpur P. O., Bengal.	Bengal Coal Co., Ltd.	Shone Singh, (m.). 29, Machineman.	Coal .	Deceased was caught by the moving picks of a chain coal cutt- ing machine and received fatal injuries. Inspection and inquiry made.
		SUNDR	LIES UNDERGROUN	ID—(23 deaths).		
219	8th January, 4 P.M.	Jamuria (Nos. 7 and 8 Pits) mine, Charanpur P. O., Bengal.	Equitable Coal Co., Ltd.	Samra Mahato, (m.), 39, Labourer.	Coal .	Following a heavy fall in a goaf, a severe air blast occurred which damaged a number of stoppings. Deceased was blown off his feet, and killed instantly. A loader was seriously injured. Inspection and inquiry made.
220	27th January, 11-30 A.M.	Rawanwara mine, Parasia P. O., Central Provinces.	Amalgamated Coalfields, Ltd.	Sehenglal, (m.), 35, Loader.	Coal .	While deceased was carrying a basket loaded with coal, in gallery dipping at 1 in 9, he accidently slipped, broke his spin and died shortly afterwards. Inspection and inquiry made.
221	28th January, 8 A.M.	Bokaro mine, Bokaro P. O., Bihar.	East Indian Railway and Bengal Nagpur Railway.	Johan Painka, (m.), 29, Coal-cutter.	Coal .	While loading coal in a quarry at the bottom of a face 12 feethigh a miner was struck by a piece of coal which was dislodged from the top of the face by other workmen. He sustained injuries to which he succumbed 4 days later. If deceased had obeyed the standing orders not to load coal while other persons were cutting coal on the bench above, the accident would not have occurred. Inspection and inquiry made.
222	4th February, 4 P.M.	Sripur (Nos. 1, 2 and 3 Pits) mine, Kalipahari P. O., Bengal.	Lodna Colliery Co. (1920) Ltd.	Sabu Bauri, (m.), 46, Mason.	Coal .	Deceased was standing on a heap of stones, building a stopping in an underground gallery, when he slipped and fell down sustaining fatal injuries. Inspection and inquiry made.

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223	18th February,	Madukkarai mine, Madukkarai P. O., Madras	Associated Cement Co., Ltd.	Patcha Gounden, (m.), 50, Labourer.	Limes- tone.	Deceased was levering down a mass of stone in a quarry with a crowbar, when the crowbar slipped and struck him in the abdomen. He sustained serious injuries to which he succumbed three days later. Inspection and inquiry made.
224	28th February, 2-30 r.m.	Kargali mine. Bokaro P. G., Bihar.	State Railways' Coal Department.	Ram Das Munda, (m.), 40, Stone-cutter.	Coal	While a quarryman was levering against a mass of stone on a bench 12 feet wide his crowbar slipped and he overbalanced. He fell off the bench to the floor of the quarry, a distance of 60 feet, and sustained injuries which proved fatal a few hours later. Inspection and inquiry made.
225	27th April, 4 P.M.	Sor Range (Lease No. 126) mine, Quetta P.O., Baluchistan.	Tikamdas Girdhari- das.	Juma Khan, (m.). 50 Loader.	Coal	While deceased was carrying a bag, containing 1 cwts. of coal, up an underground roadway rising at 1 in 2, he slipped down and sustained fatal injuries. Inspection and inquiry made.
226	12th May, 2 r.m.	Chasnalla mine, Pathardihi P.O., Bihar.	Indian Iron & Steel Co., Ltd.	Patu Bauri, (m.), 40, Coal-cutter.	Coal .	While a miner was engaged in dressing side coal in a gallery dipping at 1 in 14 a large piece of coal was dislodged and in trying to avoid it he lost his foothold and rolled 20 feet down the steep floor. He sustained internal injuries to which he succumbed three hours afterwards. If he had used the safety rope which was provided the accident would have been avoided. Inspection and inquiry made.
\$27	14th June, 4-30 F.M.	Barmondia mine, Sitarampore P.O., Bengal.	New Beerbhoom Coal Co., Ltd.	Baburam Majhi, (m.), 36, Coal-cutter.	Coal .	While deceased was cutting floor coal in a depillaring area, a piece of stone 4'×3'×6' rolled down from an adjoining gost, and dislodged a prop which struck him. He sustained injuries and died 27 days later. Inspection and inquiry made.
228	23rd June, 5 A.M.	Kajora mine, Kajoragram P. O., Bengal.	Guzdar Kajora Colliery Co., Ltd.	Haranath Chamar, (m.), 30, Coni-cuites.	Coal .	While deceased was resting in a depillaring area he was struck and fatally injured by a piece of coal, 1'×1'×9", which accidentally fell from a basket of coal, being carried on the head of a loader. Inspection and inquiry made.
229	24th June, 1-30 r.m.	Kusha mine Rajauli P. O., Bihar.	Kewal Ram .	Hari Musahar, (m.), 22, Minor.	Mica .	Deceased fell to the bottom of a winze, 28 feet deep and sustained fatal injuries. Inspection and inquiry made.
<b>23</b> 0	eth July, 8 r.m.	Dishergarh West mine, Dishergarh P. O., Bengal.	Equitable Coal Co. Ltd.	Sanichar Paamon, (m.), 52, Londer.	Coal .	While deceased was loading coal in a gallery, he was struck by a piece of coal, 2'×9"×4", which rolled down from a stack of blasted roof coal. He sustained injuries to which he succumbed 5½ months later. Inspection and inquiry made.

Serial Number.	Date and hour of accident,	Name and situation of mine.	Name of owner.	Name, sex. age, and occupation of person killed.	Name of mineral worked.	
•		SUNDRU	ES UNDERGROUNE	)—(23 deaths)—conto	L_	
231	16th August, 3-30 r.m.	Sendra-Bansjora mine, Bansjora P. O., Bihar.		Bandhu Bhuiya,	Coal .	While withdrawing props from a depillaring area of a seam 28 feet thick, a falling prop dislodged another, which struck deceased killing him instantly. Inspection and inquiry made.
232	16th August, 3-30 P.M.	Bokaro mine, Bokaro P. O., Bihar.	East Indian Railway and Bengal Nagpur Railway.	Suklu Satnami, (m.), 35, Coal-cutter.	Coal	While deceased was driving an iron wedge into a piece of coal in a quarry, a small piece of iron flew off the wedge and struck him in the leg causing serious injuries which proved fatal 25 days later. Inspection and inquiry made.
233	30th August, 4-30 P.M.	Jambad Selected mine, Kajoragram P. O., Bengal.	Devji Ghelabhai & Bros.	Jakhar Bilaspuri (m.), 45, Coal-cutter.	Coal ,	While deceased was assisting to load eight tubs standing against a buffer on a steeply inclined haulage road in a quarry, the tubs moved down slightly. He was trapped between the tubs and sustained injuries which proved fatal 25 days later. Inspection and inquiry made.
234	1st September, 7-30 P.M.	Dhobani mine, Ghatsila P. O., Bihar.	Indian Copper Corporation, Ltd.	Lal Bahadur Tha- mang, (m.), 32, Labourer.	Chalco- pyrite.	While descending a ladder in a winze with a gradient of 1 in 1.5, deceased stumbled and fell off the ladder, sustaining fatal injuries. Inspection and inquiry made.
235	12th September, 11-30 A.M.	Sitala mine, Bhojudih P. O., Bihar.	Mohta Brothers	Yudheswar Singh, (m.), 30, Coal-cutter.	Coal .	While walking down a steep gallery, deceased slipped and fell a distance of 8 feet. He sustained serious injuries to which he succumbed five days later. Inspection and inquiry made.
236	17th September, 4-30 r.m.	Central Bansjora Khas mine, Bonsjora P. O., Bihar.	Bihar Coal Co.	Ramnath Bilaspuri, (m.). 25, Loader.	Coal .	While deceased was carrying a basket of coal on his head in an underground gallery, he accidently fell down and some pieces of coal fell on his foot and inflicted injuries which proved fatal the following day. Inspection and inquiry made.

237	20th September, 12 noon.	Sirka mine, Argada P. O., Bihar.	South Karanpura Coal Co., Ltd.	Kapur Chand, (m.), 42, Coal-cutter.	Coal .	Deceased was engaged in throwing coal down a shallow shaft 15 feet deep, from one section of a seam to another when he fell down the shaft. He received serious, injuries and died about 2 months later. Inspection and inquiry made.
238	19th October, 11 a.m.	Chasnalla mine, Patherd in P. O., Bihar.	Indian Iron & Steel Co., Ltd.	Nakul Gope, (m.), 48, Labourer.	Conl .	While bailing water in a gallery dipping at 1 in 1.2 deceased lost his balance and fell about 30 feet down the sloping floor of the gallery. He sustained fatal injuries. Inspection and inquiry made.
239	3rd December, 10 a.m.	Bokaro mine, Bokaro P. O., Bibar.	East Indian and Bengal Nagpur Railways.	Nanki Satnami, (m.), 25. Coal-cutter.	Coal	Deceased was working in a quarry when a stone 1'×1'×9" fell on him from an adjoining "bench". He was killed instantly.
240	15th December, 4 P.m.	Akhalpur mine, Charanpur P. O., Bengal.	Hurriladih Coal Co., Ltd.	Chigu Singh, (m.), 40, Trammer.	Coal .	While a number of trammers were at work in a gallery, a fall of roof occurred in an adjacent goaf, causing a severe air blast which blew out and damaged a number of stoppings and doors. One of the trammers was blown against the side of a pillar and fatally injured. Inspection and inquiry made.
241	26th December, 11 A.M.	Jamadoba mine, Jealgora P. O., Bibar.	Tata Iron & Steel Co., Ltd.	(m.), 48. • Sirdar.	Coal .	While supervising the withdrawal of props, in a seam 14 feet thick, by means of a "Sylvester", a mass of roof fell unexpectedly and dislodged a prop which struck deceased and killed him instantly. Inspection and inquiry made.
	,	BY SUR	FACE MACHINERY	—(2 deaths).		
242	4th July, 1-15 A.M.	Victoria mine, Kulti P. O., Bengal,	New Beerbhom Coal Co., Ltd.	Gobinda Das Kumbhakar, (m.), 32, Labourer.	Coal .	Deceased was standing by the side of a winding angine which was in motion when he was caught by the connecting rod-end. He received serious injuries, and eleven days later tetanus supervened which proved fatal five days later. Inspection and inquiry made.
243	9th August, 4-30 A.M.	Loyabad mine, Bansjora P. O., Bihar,	Burrakur Coal Co., Ltd.	Kishan Mahato, (m.), 17, Labourer.	Coal .	Deceased was removing coal which had fallen from the belt of a screening plant when his clothing was caught in the driving gear, and he was fatally injured. Inspection and inquiry
		ON SURFACE RAI	LWAYS AND TRAN THE MINE—(13 dea		ig to	made.
244	2nd January, 5 r.m.	Ghogri Barkui mine, Junnordeo P. O., Central Provinces	Walji Bhimji & Sons.	Chaitram Mehra, (m.), 40, 2 ramline repairer.	Coal .	A tramline repairer attempted to immp on to the frame of a loaded tub which was gravitating along a surface tramline dipping at 1 to 70, but fell down. He was severely injured by the tub and died 5 days later. Inspection and inquiry made.

Serial Number	Date and nour of accident.	Name and aituation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
		ON SURFACE RAI	ILWAYS AND TRA E MINE—(13 deaths)	MWAYS BELONGIN		
245	7th February, 6-45 P.M.	Newton Chickli mine, Parasia P. O., Central Provinces.	Newton Chickli Collieries, Ltd.	Sukhlal Dhimar, (m.), 38, Fitter.	Coal	While attempting to cross a surface haulage in front of a moving set of loaded tubs, deceased was knocked down and killed instantly. Inspection and inquiry made.
246	16th March, 6 a.m.	Loyabad mine, Bansjora P. O., Bihar.	Burrakur Coal Co., Ltd.	Murali Sarkar, (m.), 45, Labourer.	Coal .	While working on a curve of an endless haulage road, deceased was struck and fatally injured by the moving rope which was suddenly released from the guide pulleys. Inspection and inquiry made.
247	24th April, 9 a.m.	Khas Kajora mine, Kajoragram P. O., Bengal.	Khas Kajora Coal Co., Ltd.	Ramdhani Bhuiya, (m.), 30, Trammer.	Coal .	While assisting to overturn a loaded tub at a colliery depot, a trammer sustained serious spinal injuries, which proved fatal 18 hours later. Inspection and inquiry made.
248	25th April, 9 r.m.	Kargali mine, Bokaro P. O., Bihar.	State Bailways' Coal Department.	Keja, (f.), 35, Labourer.	Coal .	Deceased was run over and fatally injured by a locomotive. Inspection and inquiry made.
249	13th May, 12 noon.	Sitasaongi mine, Goberwahi P. O., Central Provinces.	Central Provinces Manganese Ore Co., Ltd.	Manjuli, (f.), 25, Labourer.	Manga- nese.	While attempting to get out of the way of a moving loaded tub deceased was crushed between the tub and the side of a tunnel. She died from injuries half an hour later. Inspection and inquiry made.
250	8th July, 8 A.M.	Chickla mine, Goberwahi P. O., Central Provinces.	Central Provinces Manganese Ore Co., Ltd.	Mohadeo, (m., 37, Trammer.	Manga- nese.	Deceased was attempting to cross a tram line at a level crossing when he was run over by a loaded tub which was being hand shunted. He sustained serious injuries which proved fatal three days later. Inspection and inquiry made.

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251	2nd August, 9 A.M.	Khas Kendwadih mine, Nowagarh P. O., Bihar.,	Bhola Nath Mondal	Sahodori Bhuiya, (f.), 25, Trammer.	Coal	•	A loaded tub was gravitating down a slope of 1 in 100 when deceased inadvertently stepped in front of it. She was knocked down and fatally injured. Inspection and injury made.
<b>2</b> 52	8th September, 6 r.m.	New Lakurka mine, Katrasgarh P. O., Bihar.	Sansar Chaudra Mukherji.	Monogi Jeswar, (m.), 50, I rammer.	Coal	•	While a full tub was being re-railed on a surface tram-line it overturned and fell on deceased, who succumbed to his injuries two days later. Inspection and inquiry made.
253	14th October, 12 midnight.	Parbelia mine, Necturia P. O., Bihar.	Bengal Coal Co., Ltd.	Raboni Mejhian, (f.), 17, Badoni Mejhian, (b.), 20; Lubourers.	Coal		Several persons were employed in moving an empty wagon under a screen ng plant, when another empty wagon left standing ran down on to them. The deceased was crushed between the buffers of the wagons and killed on the spot. Inspection and inquiry made.
254	18th November, 12-30 r.k.	Barares mine, Jealgora P. C., Bihar.	East Indian Cosi Co., Ltd.	Dhorai Moshara, (m.), 35, Labourer.	Coal		Deceased and his four companions were pushing an empty wagon along a colliery siding rising about 1 in 100, when he slipped and fell down. He was crushed and killed instantly by the rear wheel of the wagon which moved back. Inspection and inquiry made.
<b>2</b> 55	19th November, 1-30 r.m.	Dhori mine, Bokaro P. O., Bihar.	Bokaro and Ram- gur, Ltd.	Kosalwa Bhuiyan, (f.), 18, Coal-corrier.	Coal .		While attempting to cross a colliery siding deceased was run over by loaded wagons which were being lowered down a gradient of about 1 in 150. Inspection and inquiry made.
			BY ELI	ECTRICITY—(3 deals	le.)		
<b>\$</b> 56	9th March, 3 P.M.	Sripur (Nos. 1, 2 and 3 Pits) mine, Kalipahari P. O., Bengal.	Lodns Colliery Co., (1920) Ltd.	Chandan Singh, (m.), 34, Labourer. Sahadat Meah, (m.), 32, Fitter.	Coal ,		When the two deceased persons were in a sump containing water after having fitted a foot-valve in the suction pipe of a pump, an electric flash occurred in the trailing cable connecting the gate-end switch and the starter for the pump motor as soon as the switch was in the "on" position. The two persons received an electric shock and fell in to the water and were drowned. The system of supply was 550 volts, three phase, A. C. with the neutral point insulated Inspection and inquiry made.
\$57	28th March, 10 a.m.	Banksimula (7 & 8 Pite) mine, Charanpur P. O., Bengal.	Bengal Coal Co., Ltd.	Bosir Meah, (m.), 30, Labourer.	Coul .		While, deceased was coiling a plain unscreened type trailing cable as a coal-cutting machine was being fitted, he caught hold of a defective portion of the trailing cable and as a result received a fatal electric shock.  The system of supply was three phase at 550 volts with the neutral point insulated. Inspection and in juiry made

Serial Number,	Date and hour of . socident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked	Cause of accident and remarks.
258	15th June, 1-30 р.м.	Khas Jinagora mine, Jharia P. O., Bihar.	MISCELLANEOUS	S ON SURFACE—(3 Latif Meah, (m.), 32, Fitter.	deaths).	In order to remove a guide rope from a shaft the rope was lashed to one of the bridle chains of the cage by a piece of hemp rope and the cage was then raised. As the cage reached the surface the hemp rope securing the guide rope to the cage broke and the guide fell back into the shaft, striking the head fitter who was in charge of operations. He sustained injuries to which he
<b>2</b> 59	lst November, 1-45 r.m.	Sodepur (Nos. 9 & 10 Pits) mine, Sundarchak P. O., Bengal,	Bengal Coal Co., Ltd	Rangoo Meah, (m.), 60, Labourer.	Coal .	A gang of men was engaged near a shaft top in winding a slack length of 1 steel rope on to a winch, while a coir rope, 1 diameter, had been used to secure 800 of the rope hanging in the shaft. The coir rope broke and the slack rope on the surface suddenly tightened and struck deceased, inflicting fatal injuries. Inspection and injury made.
260	19th November, 8 A.M.	South Goluckdih mine, Jharia P. O., Bihar.	South Goluckdib Coal Co.	Sapti, (f.), 35, Labourer.	Coal .	While deceased was passing between two burning heaps of "soft coke", her clothing caught fire. She sustained burns to which she succumbed 10 hours later. Inspection and inquiry made.

Serial Number.	Date and hour of socident.	Name and situation of mine.	situation of Name of owner.		Name of mi- neral worked.	Reason for exclu- sion.	Cause of accident and remarks.
•		•	FATAL ACCIDENTS NOT INCLUDED IN THE STATISTICS—(30 deaths).				
1	25th January, 5 F.M.	Kumardungi mine, Hat Gamaria P. O., Bihar.	Krishna Gopal Sarda.	Namo Nayak, (m.), 25, Labourer.	China- oley.	Not a mining accident.	While extracting china-clay from an undermined bank of a stream, deceased was killed by a fall of earth, measuring 6'×6'×3'. Inspection and inquiry made.
2	6th February, 3 a.m.	Lovabad mine, Bansjora P. O., Bihar,	Burrakur Coal Co., I,td.	Sobreton Bibi, (f.), 40, Labourer.	Coal .	Not a mining accident.	Deceased was warming herself near a fire, when her clothing caught fire. She sustained serious burns to which she succumbed about 7 hours later. Inspection and inquiry made.
3	14th February. 2 a.m.	Khas Jambad mine, Ukhra P. O., Bengal.	Fulchand & Sons	Tuila Majhi, (m.), 60, Cool-cutter.	Coal .	Not a mining accident.	While deceased was working in a gallery, he died of heart-failure on the spot. Inspection and inquiry made.
4	22nd February, 3 P.M.	Ghorawari mine, Junnordeo P. O., Central Provin- ces.	Hirdagarb Collie- rice, Ltd.	Tulsi, (f.), 20, Labourer.	Coal ,	Not a mining accident.	Deceased was drowned in a water-logged quarry which was regularly used for bathing purposes. Inspection and inquiry made.
8	9 A.M.	Ghorawari mine, Junnordeo P. O., Central Provin-	Hirdagarh Collie- ries, Ltd.	Sahulal, (m.), 25, Trammer.	Coal .	Not a mining seci- dent.	A man was found drowned in a well which was surrounded by a high brickwall 3 feet high. Inspection and inquiry made.
	24th March, 10 acm.	Bokaro mine, Bokaro P. O., Bihar.	Bast Indian Rail- way and Bengal Nagpur Rail- way.	Mallah,	Coni .	Not employ- ed.	Deceased was found dead in a disused quarry 60 feet deep. The quarry was properly fenced. Inspection and inquiry made.

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Serial Number.	Date and hour of mines.  Name and situation Name of owner.		Name, sex, age and occupation of person killed.	Name of mineral worked.	Reason for exclu- sion.	Cause of accident and remarks.	
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*. <b>7</b> 3	16 April, 6 P.M.	Londa (Nos. 4 & 5 Pits) mine, Jharia P. O., Bihar.	Lodna Colliery Co. (1920) Ltd.		Coal .	Not a mining accident.	While an engine was drawing a train of wagons out of a siding, deceased, who was in an unbalanced state of mind, attempted to cross the line. He was run over by the engine and fatally injured. Inspection and inquiry made.
/8	22nd April, 6 r.m. (Approxi- mately)	Bidwali mine, Beghera P. O. Rajputana,	Chatturam Horil- ram Ltd.	Kajoor, (m.), 27, Labourer.	Міса.	Not a mining accident.	Deceased was found drowned in a discontinued and water-logged mica mine. Inspection and inquiry made.
9	23rd April, .5-45 a.m.	Isabella mine, Nudkhurkee P. O., Bihar.	Kumar Sarat Kumar Ray.	Kara Beldar, (m.), 24, Labourer.	Coal .	Not a mining accident.	During shunting operations in a colliery siding deceased was run over and killed instantly. Inspection and inquiry made.
10	4th May, 2 r.m.	Parascole mine, Kajoragram P. O., Bengal.	Chandanmull Indrakumar.	Munshi Majhi, (m.), 30, Coal-cutter.	Coal .	Not a mining accident.	Deceased committed suicide by jumping down a shaft 105 feet deep which was securely fenced on the surface. Inspection and inquiry made.
	13th May, 12-30 P:M.	Lower and Upper Jharia mine, Jharia P. O., Bihar.	Khimji Dossa & Sons.	Daya Lal, (m.), 8.	Coal .	Not emplo- yed.	Deceased was found drowned in a boiler feed tank containing 9 feet of water. Inspection and inquiry made.
12	25th May. • 4-20 p.m.	Ghorawari mine, Junnordeo P. O., Central Provin-	Hirdagarh Col- lieries, Ltd.	Kallu Kurmi, (m.), 45; Somat Gond, (f.), 30;	Coal .	Not a mining acci- dent.	While a train of empty tubs was being hauled by a locomotive, one of the tubs became derailed and turned over. Two pedestrians, who were walking alongside the haulage line were caught by the tub and fatally injured. Impection and inquiry made.

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13	29th May, 1-30 P.M.	Katni-Murwara mine. Katni P. O.; Central Pro- vinces.	T. C. Bajan & Co.	Ghneitia, (f.). 25, Not employed.	Lime- stone.	Not emplo- yed.	Deceased was digging clay from the soc sod quarry when a mass of earth fell and killed her on the spot. The quarry was adequately fenced. Inspection and inquiry made.
14	2nd June, 5 P.M.	Kalera Bogla mine, Karakka Chowk P. O., Rajputana.	Harbilas Madan- mohan.	Bhura, (m.), 1½.	Mica.	Not employed.	A child fell into a discontinued excavation, 30 feet deep, and sustained injuries, which proved fatal two hours later. Had the edges of the excavation been properly fenced the accident would not have occurred. Inspection and inquiry made.
15	7th June, 8 P.M.	Muchersidih mine, Mohuda P. O., Bihar.	Manbhum Coal Syndicate.	Kantilel Shah, (m.), 22. Cashier.	Coal .	Not a mining scci-dent.	Deceased went to bathe in a boiler feed tank and was drowned.  The tank was fenced by brick-walls, 4 feet to 6 feet high.  Inspection and inquiry made.
16	lith June, Time not known.	Akhalpur mine, Charanpur P. O., Bengal.	Hurriladih Coal Co., Ltd.	Unknown, (f.), 25, Not an em- ployee.	Coal .	Not a mining acci- dent.	The dead body of an unknown woman was found at the bottom of a dry abandoned well about 25 feet deep. Inspection and inquiry made.
17	20th June, 10-30 A.M.	Khas Jharia mine, Jaria P. O., Bihar.	Khas Jharia Colliery Co. (1933), Ltd.	Sodagar Singh, (m.). 45, Labourer.	Coal .	Not a mining accident.	An old winding-engine house had become unsafe and had been fenced off until it could be demolished. Deceased went within the fenced area when a wall of the engine-house suddenly collapsed. He was buried and killed instantly. Inspection and inquiry made.
18	20th June, 12 noon.	Phutaritand mine, Katrasgarh P. O., Bihar.	Chandanmuli Indrakumar.	Ram Do Bhuiya, (m.), 9. Not an em- ployes.	Coal .	Not em- ployed.	Deceased passed through a fence and sat down on the return pulley of a surface endless rope haulage. The rope started at that moment and his left leg was crushed between the moving pulley and the rope. He succumbed to his injuries two days later. Inspection and inquiry made.
19	20th July, 8 s.m.	Garbham mine Chipurupalle P. O., Madras.	Viziangram Min- ing Co., Ltd.	Sandaka Appadu, (m.). 40. Cartman.	Manga- nese.	Not a mining accident.	While carting ore deceased fell beneath a wheel of the cart and was fatally injured. Inspection and inquiry made.
20	30th July, 6-30 r.m.	Newton Chickli mine, Parasia P. O., Central Pro- vinces.	Newton Chickli- Collieries, Ltd.	Tijaniya, (f.). Not emploped.	Coal .	Not a mining accident.	Deceased attempted to cross an endless haulage road in front of a moving set of empty tube, when she was run over. She sustained serious injuries to which she surcumbed two and a half hour later. Inspection and inquiry made.

Serial Number.	Date and hour of socident.	Name and situation of mine.	Manua or owner. and worker w		Name of mineral worked.	Reason for exclu- sion.	Cause of accident and remarks.
			FATAL ACCIDENTS NOT INCLUDING IN THE STATISTICS —(30 deaths)—concid.			N THE	
.21	15th September, 8 A.M.	Pure Nichitpur mine, Bansjora P. O., Bihar.	Pure Nichitpur Colliery, Co.	Bifia Nunian, (f.), 25.	Coal .	Not em- ployed.	Deceased fell into a discontinued pit containing 18 feet of water and was drowned. The pit was fenced. Inspection and inquiry made.
22	15th September, 9 A.M.	Mudidih mine, Sijus P. O., Bihar.	Burrakur Coal Co., Ltd.	Tetur Bhuiya; (m.), 50, Labourer.	Coal .	Not a mining accident.	Deceased was drowned while bathing in an abandoned quarry. Inspection and inquiry made.
23	15th September, 9-45 P.M.	Patmohna mine, Sitarampur P. O., Bengal.	North Damuda Coal Co., Ltd.	Neba Bauri, (m.), 40, Not an em- ployee.	Coal .	Not a mining accident.	While wagons were being hand shunted on a railway siding, deceased attempted to pass between two wagons. He was crushed between the buffers and fatally injured. Inspection and inquiry made.
24	27th October, 9 A.M.	Gandhala mine, Bandot P. O., Punjab.	Wah Stone and Lime Quarry, Ltd., and Pandit Gian Chand.	Fakroo, (m.), 30, Not employed.	Coal .	Not employed.	Deceased was run over and fatally injured by a set of three loaded tubs, gravitating along a surface tramline with a gradient of 1 in 10. Inspection and inquiry made.
·25	4th November, 9-15 A.M.	Warcha mine, Warcha Mandi P. O., Punjab.	Government of India.	Yar Mohammad, (m.), 46, ? rammer.	Salt .	Not a mining accident.	Deceased died of heart-failure, while sitting outside a mine entrance. Inspection and inquiry made.
-26	21st November, 10-30 p.m.	Dhori mine, Bokaro P. O., Bihar.	Bokaro and Ramgur, Ltd.	Bipon Ram, (m.), 55, Gateman.	Coal .	Not a mining accident.	While proceeding home at the end of his relay, deceased slipped down on the surface and sustained injuries which proved fatal 12 days latter.

27	2nd December 7-30 A.M.	Chunabarta mino, Japia P. O., Bihar.	Sone Valley Portland Coment Co., Ltd.	Ali Hussain, (m.), 35, Driller.	Lime- stone.	Not a mining acci-dent.	Deceased was found dead in an open working. The cause of hi death could not be ascertained. Inspection and inquiry made	
28	14th December, 1-30 P.M.	East Chargaon mine, P. O., Central Pre- vinces.	Shamji Naranji	Girji Telin, (f.), 20, Not employed.	Manga- nese.	Not a mining accident.	Deceased was taking water from a discontinued quarry, containing 7 feet of water, when she fell into the water and was drowned. Inspection and inquiry made.	
29	26th December, 10 A.M.	Ghorawari mine, Ghorawari P. O., Central Pro- vinces.	Hirdagarh Col- lieries, Ltd.	Ramla, (f-), 32, Not employed.	Coal .	Not a mining accident.	Deceased went to a discontinued quarry, containing 15 to 20 feet of water to wash clothes, when she fell into the water and was drowned. Inspection and inquiry made.	
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# APPENDIX III.

Statement of prosecutions under the Indian Mines Act, during the year 1941.

Province.	District.	Number of prosecu- tions.	Number of persons prose- cuted,	Number of persons con-victed.	Number of Regulations, Bye-laws and Rules and Sections of the Act con- travened.	Remares.
Assam	Margherita .	1	3	3	Regulation 84 of the Indian Coal Mines Regulations, 1926.	
Baluchistan .	Quetta Pishin.	1	2	2	Section 15 (1) of the Indian Mines Act, 1923, read with Regulation 23 of the Indian Coal Mines Regulations, 1926.	. 1
	Burdwan .	1	3	3	Regulation prohibiting employment of women underground in mines embodied in Government of India, Department of India, Department of Industries and Labour, Notification No. M-1055, dated the 1st February 1937, Regulation 149 of the Indian Coal Mines Regulations, 1926, read with Section 28 of the Indian Mines Act, 1923 and Bye-law 31 of the Bye-laws made under Section 32 of the Indian Mines Act, 1923.	
Bengal	Do	1	<b>₫</b>	••	Section 22 C(1) read with Sections 23-B(1) and 23-B(4) of the Indian Mines Act, 1923, Regula- tion 149 of the Indian Coal Mines Regulations, 1926, read with Bye-law 95 of the Bye-laws made under Section 32 of the Indian Mines Act, 1923.	The case is pending.
	Do	1	2	••	Regulation 58(C) and Regulations 77(5) (a) and 77(5) (d), read with Regulation 78(2) of the Indian Coal Mines Regulations, 1928.	Do.
	Do, .	1	2	2	Regulations 77(4) and 77(5) (a) and 77(5) (c), read with Regulation 78(2) of the Indian Coal Mines Regulations, 1926.	

Statement of prosecutions u der the Indian Mines Act, during the year 1911-contt.

Province.	District.	Number of prosecu-tions.	Number of persons prose-cuted.	Number of persons con- victed.	Number of Regulations, Byo-laws and Rules and Sections of the Act con- travenod.	Remarks.
	Burdwan .		5	3	Regulation prohibiting employment of women underground in mines embodied in Government of India, Department of Industries and Labour, Notification No. M-1055, dated the 1st February 1937, Bye-law 31 of the Bye-laws made under Section 32 of the Indian Mines Act, 1923 and Regulation 149 of the Indian Coal Mines Regulations read with Bye-law 95 of the Bye-laws made under Section 32 of the Indian Mines Act, 1923.	The case against two of the accused was withdrawn.
Bengal —€ontd.	Do	1	1	1	Section 15 of the Indian Mines Act, 1923, Regulations 69(1) and 70(2) of the Indian Coal Mines Regulations, 1926, and Rule 9 made by the Bengal Government under Section 30 of the Indian Mines Act, 1923.	
	Do	94	1	1	Regulation 3(2) of the Indian Coal Mines Regulations, 1926.	
	Do	1	2	2	Regulations 66, 58(i) (1) and 80(3) of the Indian Coal Mines Regulations, 1926.	
	Do	1	3	2	Regulations 77(2), 92 and 121 of the Indian Coal Mines Regulations, 1926.	The cross ngainst on a of the re- ensed was withdrawn
	Do	1	3	` 1	Regulations 58(k), 80(3), 80(5) and E39 of the Indian Coal Mores Regulations, 1923.	Two of the necessary were acquired
Bil ar	Hazaribagh .	1	2	2	Regulation 38 of the Indian Metalliferous Regulations, 1926.	

Statement of prosecutions under the Indian Mines Act, during the year 1941-conft.

Province.	District.	Number of prosecutions.	Number of persons prose-cuted.	Number of persons convicted.	Number of Regulations, Bye-laws and Rules and Sections of the Act con- travened.	Remarks.
	Hazaribagh .	1	2	2	Regulation prohibiting employment of women underground in mines embodied in Government of India, Department of Industries and Labour, Notification No. M-1055, dated the 1st February 1937.	
Commission magnine conjugate	Manbhum .	1	1	1	Regulations 15 and 140(1) of the Indian Coal Mines Regulations, 1926 and Regulations 66, 77 and 81(1) (c) of the Indian Coal Mines Regulations read with Section 16 of the Indian Mines Act, 1923.	,
Strur—contd.	Do	1	1	••	Regulation 58(1) of the Indian Coal Mines Regulations, 1926, read with Bye-law 61 of the Bye-laws made under Section 32 of the Indian Mines Act, 1923.	The accord was acquitted.
	Do	1	1	1	Section 15 of the Indian Mines Act, 1923, read with Regulation 23 of the Indian Coal Mines Regulation, 1926.	
-	Do	1	1	<b>, 1</b>	Regulation prohibiting employment of women underground in mines embodied in Government of India, Department of Industries and Labour, Notification No. M-10-51, dated the 20th January 1938.	
	Do			1	Regulation 3 (1) of the Indian Coal Mines Regu- lations, 1926.	The first of of the acceptance of the acceptance of the acceptance of the pending.
,	Do		2	2	Regulations 13, 6 and 21 of the Indian Metallife- rous Mines Regulations, 1926.	

statement of prosecutions under the Indian Mines Act, during the year 1941-con-1

Province.	District.	Number of prosecu- tions.	Number of persons prose- cuted.	Number of persons convicted.	Number of Regulations, Bye-laws and Rules, and Sections of the Act con- travened.	Reviers.
	Manbhum	1	2	2	Regulation 137 (2) of the Indian Coal Mines Regu- lations, 1926 and Rule 18 of the rules made by the Bihar Government under Section 30 of the Indian Mines Act, 1923.	
	Do.	1	2	1	Regulation 77 (5) (a) and (d) read with Regulation 78 (2) of the Indian Coal Mines Regulations, 1926 and Section 15 (1) of the Indian Mines Act, 1923.	The case against one of the accused was dropped owing to his death.
Do. Do.	Do.	1	3	3	Regulations 77 (2) and 77 (5), read with Regu- lation 8I (1) (c) of the Indian Coal Mines Regulations, 1926.	
	Do.	1	2	••	Section 15 (I) of the Indian Mines Act, 1923, read with Regulation 23 of the Indian Coal Mines Regulations, 1928.	The case was withdrawn.
	Do.	.] 1	. 2	2	Regulation 73 of the Indian Coal Mines Regulations, 1926.	
	Do.	1	4	4	Regulation prohibiting employment of women underground in mines embodied in Government of India, Department of India, Department of India, Department of Indiatrics and Labour, Notification No. M-1955, dated the lat February 1937, Regulations 77, 137, 144 and 149 of the Indian Coal Mines Regulations, 1926, read with Byelaw 95 of the Byelaws made under Section 32 of the Indian Mines Act, 1923 and Rule 9-A of the Rules made by the Bishar Government under Pection 30 of the Indian Mines Act, 1923.	

Statement of prosecutions under the Indian Mines Act, during the year 1941—contd.

Province.	District.	Number of prosecu- tions.	Number of persons prose- cuted.	Number of persons convicted.	Number of Regulations, Bye-laws and Rules and Sections of the Act con- travened.	Remares.
	Manbhum .	1	, <b>2</b>	1	Regulations 15, 17 and 87-A of the Indian Coal Mines Regulations, 1926.	One of the accused was acquitted.
Do	Do.	1	. 1	••	Section 15 of the Indian Mines Act, 1923 and Regulations 15 (4) and 137 of the Indian Coal Mines Regulations, 1926.	The case is pending.
	· Do.	1	2	••	Regulation 15 (4) of the Indian Coal Mines Regu- lations, 1926, read with Bye-law 35 of the Bye- laws made under Sec- tion 32 of the Indian Mines Act, 1923.	Do.
	Do	1	3		Regulations 67, 103 and 140 (1) of the Indian Coal Mines Regulations, 1926.	Do.
Bihar-contd.	Do.	1	1	••	Section 15 of the Indian Mines Act, 1923 and Regulations 15 and 77 of the Indian Coal Mines Regulations, 1926.	Do.
	Do.	1	2	•••	Section 15 of the Indian Mines Act, 1923 and Regulations 77 (4) and 80 (3) and 5 of the Indian Coal Mines Regu- lations, 1926.	Do.
	Do.	1	6	4	Section 15 (1) of the Indian Mines Act, 1923, read with Regulation 23 of the Indian Coal Mines Regulations, 1926.	Two of the accused could not be traced.
	Do.	1	1	••	Regulation 17 of the Indian Coal Mines Regu- lations, 1926.	The case was withdrawn as the violation was remedied.
	Do.	1	2	**	Regulation 81 (1) (c) of the Indian Coal Mines Regulations, 1926.	The case was
	Do,	1	1	••	Regulation 17 of the Indian Coal Mines Regu- lations, 1926.	The case i

Statement of prosecutions under the Indian Mines Act, during the year 1911-contil

Province.	District.		Number of prose- cutions.	Number of persons prose- cuted.	Number of persons convicted.	Number of Regulations, Byc-laws and Rules and Sections of the Art con- travened.	Rемарка.
	Manbhum	•	1	1	1	Regulation 95 (2) of the Indian Coal Mines Regu- lations, 1926.	
Bihar—	Do.	•	1	1	••	Bye-law 8 of the Bye-laws made under Section 32 of the Indian Mines Act, 1923.	The same was withdrawn as the accused could not be traced.
concld.	Do.	•	1	8	8	Byc-law 8 of the Byc-laws made under Section 32 of the Indian Mines Act, 1923.	
	Monghyr	•	1	2	1 %	Section 3 (1) of the Indian Metalliferous Mines Regulations, 1926.	The case is pending.
-	Bhandara		1	2	2	Regulation 38 of the Indian Metalliferons Mines Regulations, 1926	
	Chindwara		1	2	2	Section 22 (c) of the Indian Mmes Act, 1023 and Regulations 67 and 137 of the Indian Coal Mines Regulations, 1026	
•	Do.		1	1	1	Regulation 84 of the Indian Coal Mines Regu- lations, 1925.	
Central Pro.	Do.	•	1	1	1	Regulation 101 of the Indian Coal Mines Regu- lations, 1926.	
Vinces.	Do.	•	1	2	2	Regulation 108 (1) of the Indian Coal Mines Regu- lations, 1926.	
	Do.	• :	i	3	3	Regulation 104 (2) of the Indian Coal Mue's Regu- lations, 1926.	
	Do.	•	1	2	2	Regulation 95 (2) of the Indian Coal Marce Regu- lations, 1926.	
	Da.	•	1	1	1	Regulations 108, 146 and 118 of the Indian Cod Mines Regulations, 1926.	

Statement of prosecutions under the Indian Mines Act, during the year 1941—concld.

-		_				-
Province.	District.	Number of prose- cutions.	Number of persons prose- cuted.	Number of persons con- victed.	Number of Regulations, Bye-laws and Rules and Sections of the Act con- travened.	Remarks.
	Chindwara .	1	1	3 4	Regulation 95 (2) of the Indian Coal Mines Regu- lations, 1926.	The accused was sequit-ted.
Central Pro-	Do.	1	1	1	Bye-law 55 of the Bye- laws made under Section 32 of the Indian Mines Act, 1923.	
Vinces— contd.	Do	1	2	. 1	Regulations 108 and 109 of the Indian Coal Mines Regulations, 1926.	One of the acoused was acquit-ted.
	Jubbulpore .	1	1	1	Regulation 3 (1) of the Indian Metalliferous Mines Regulations, 1926.	
Orissa	Sambalpur .	2	2	2	Section 144 of the Indian Mines Act, 1923.	
Rajputana .	Ajmer-Merwars	1	<b>3</b>	••	Section 26-A of the Indian Mines Act, 1923 and Regulations 72, 64 (3) and 74 of the Indian Metalliferous Mines Regulations, 1926.	The case is pending.
, (	Do.	1	2	4.	Regulations 72 and 84 of the Indian Metalliferous Mines Regulations, 1926.	Do.
United Pro- vinces.	Jhansi	1	1	••	Regulation 3 (1) of the Indian Metalliferous Mines Regulations, 1926.	The case was withdrawn.
,		· · · · · · · · · · · · · · · · · · ·			•	
	and the second s	And the second s				

## APPENDIX IV.

# Miscellaneous.

### Statement No. 1.

# LIST OF INSPECTION CIRCLE.

No. 1 Circle.	No. 2 Circle.					
1. All mines in Baluchistan.	1. All mines in Assam.					
<ol> <li>All mines in Bihar except mines in the District of the Santhal Parganas and such mines in the District of Manbhum as lie cast 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.</li> <li>All mines in Orissa.</li> <li>All mines in the North-West Frontier Province.</li> <li>All mines in the Punjab.</li> <li>All mines in the Rajputana.</li> <li>All mines in the United Provinces.</li> <li>All mines in Sindh.</li> </ol>	3. Such mines in Bihar as lie in the District of the Santhal Pargams and in the District of Manbhum east of a line drawn from mile 175					

# Statement No. 2.

Names of persons to whom first and second class coal mine managers' certificates of competency and surveyors' certificates of competency were granted during the year 1941.

# INDIAN CERTIFICATES.

# (a) FIRST CLASS.

Name	÷.			Number of certificate.	Date of certificate.	Вгнация.
l'etre, Washishtneth .		•		 283	20th March 1941.	
Verma, Prakash Narayan				284	· Ditto.	
Lamesthan, S. N.				235	Ditto.	
Klanna, Raja Ram .			•	286	Datto.	
Marwaha, Babu Ram .			,	287	· Ditto.	
I'se, Amal Chandra .		•		288	Ditto.	

# Miscellaneous-contd.

# Statement No. 2-contd.

Names of persons to whom first and second class coal mine managers' certificates of competency and surveyors' certificates of competency were granted during the year 1941—contd.

## INDIAN CERTIFICATES-conid.

# (a) FIRST CLASS—contd.

Name.			·	Number of certificate.	Date of certificate.	Remarus,
Chakraverty, Gokul Chandra	•		•	289	29th March 1941.	
Ganguly, Ajit Kumar	•	•	•	290	Ditto.	
Vashisht, Dina Nath	•	•	•	291	Ditto.	
Gulati, Raghunath Sahai .	•		•	292	Ditto.	
Mukherjee, Nalini Mohan .	•			293	Ditto.	
Tayab, Mohammed	•	•	•	294	Ditto.	

# (b) SECOND CLASS.

Name	<b>.</b>	·			Number of certificate.	Date of certificate.	Remares.
Khanna, Raja Ram .	•				601	29th March 1941.	
George, K. Z	•	•	•	•	602	Ditto.	
Adhikari, Balaram .	•	٠	٠	•	603	Ditto.	
Bancrice, Jagat Ranjan		•		•	604	Ditto.	
Pathak, Basheshar Datt		٠	•		605	Ditto.	
Sen, Sailajananda .	•	•	٠		- 606	Ditto.	
Ruo, Sorab Gopal .	•	•	•	•	607	Ditto.	

# Miscellaneous-contd.

# Statement No. 2-contd.

Names of persons to whom first and second class coal mine managers' certificates of competency and surveyors' certificates of competency were granted during the year 1941—contd.

# INDIAN CERTIFICATES-contd.

# (c) SURVEYORS' CERTIFICATES.

Name.				Number of certificate.	Date of certificate.	Вемакка.
Ram, Bal		•		147	13th January 1942.	
George, K. Z				148	Ditto.	
Kanjilal, Rati Lochan .			. [	149	Dilto.	
Roy Chowdhury, Hrishi Kesh		•		150	Ditto.	-
l'aneja, Gursaran Dass .			. [	151	Ditto.	
lha, Ugra Narain				152	Ditto.	
Bancrjee, Bhupendra Nath			*	153	Ditto.	
Chatterjee, Sushanta Kumar			. ]	154	Ditto.	
Banerjee, Lal Mohan .		•		155	Ditto.	
Rao, Sorab Gojal			. ]	159	Ditto.	
Ranu, Rakha Hari				157	Ditto.	
Ruparclia, Vasanji Meghji				158	Ditto.	
Sinha, Sudbir Kumar .				159	Ditto.	
rasad, Sukh Deo				160	Ditto.	
lahwa, Jugal Kishore .				161	Ditto.	
Mondal, Sourindra Kumar				162	Ditto.	
llukherjee, Tara Kumar .			.	163	Ditto.	
Poy, Radha Shyam			. ]	161	Ditto.	
Singh, Sakaldeo Narain .	•			165	Datto.	
Vesuderan, Margabandhu				166	Datto.	

# Miscellaneous-cont I.

### Statement 2-concld.

Names of persons to whom first and second class coal mines managers' certificates of competency and surveyors' certificates of competency were granted during the veur 1941—concld.

### INDIAN CERTIFICATES-concld.

# (c) SURVEYORS' CERTIFICATES—concld.

Name.				Number of certificate.	Date of certificate.	<b>Веманка</b> ,
Bose, Sachindra Kumar .	*	•		167	13th January 1942.	_
Datta, Ardhendu Bhusan .	•	•		168	Ditto,	
Gupta, Aboni Bhusan .	•	. •		169	Ditto.	
Pradhan, Bhalchandra Gopal	• .	•	. ]	170	Ditto.	
Rau, Pingalo Sridhara .	•	•	•	171	Ditto.	-
Acharjee, Baidya Nath .		•		172	Ditto.	
Chatterice, Ghana Shyam .	•	.•		173	Ditto.	
Chowdhury, Sasanka Mohan			•	174	Ditte.	
Debnath, Nitya Gopal .	•	•		. 175	Ditto.	
Ganguly, Suresh Chandra .	• .	•		176	· Ditto,	
Khanna, Kailash Narain .	•		-	177	Ditto.	
Pnaiser, Atma Singh	•	•		178	· Ditto.	
Chatterjee, Nripendra Nath	•		,	179	Ditto.	
lukherjee, Butto Krishus				180	Ditto.	

### APPENDIX IV---owd.

Miscellaneous-contd.

Statement No. 3.

NOTIFICATION.

# Simla, The 2nd June 1941.

No. M.-1951.—In exercise of the powers conferred by section 46 of the Indian Mines Act, 1923 it V of 1923), the Central Government is pleased to direct that the following further amendments shall no made in the notification of the Government of India in the Department of Labour, No. M.-1851, dated the 20th January 1938, namely:—

- In Appendix I to the Schedule annexed to the said notification, under the Head "United Provinces" and the sub-head "Stone Mines"—
  - (i) entries 8 and 9 shall be re-numbered as entries 9 and 10 respectively;
  - (ii) for entry 7, the following entries shall be substituted, namely :--

"7. Kulmajra		Daya Krishna Kapur	Kulmajra	Mac	Banda.
8. Kulmajra	• , •	Lala Prag Narain Tandan.	Kulmajra	Mau .	Bands, "
		1 4114-1-1		l	•

· S. H. ZAHEER,

Addl. Deputy Sery. to the Copt, of India.

Strament No. 4

NOTIFICATION.

# Simla, The 28th August 1941.

No. M.-1276.—In exercise of the powers conferred by section 30-A of the Indian Mines Art, 1923 (IV of 1923), the Central Government is pleased to direct that the following further amendment shuit be made in the Coal Mines Rescue Rules, 1939, the same having been previously published as required by sub-section (1) of section 31 of the said Act, namely :—

To sub-rule (1) of rule 5 of the said Rules, the following provise shall be added, namely :--

"Provided that an outgoing member may continue in office until the appointment of his successor is notified."

8. H. ZAHKER,

Addi, Deputy Secy. to the Good. of India

## Miscellaneous-contd.

Statement No. 5.

NOTIFICATION.

## Simla, The 3rd October 1941.

No. M.-76.—In exercise of the powers conferred by section 29 of the Indian Mines Act, 1923 (IV of 1923), the Central Government is pleased to direct that the following further amendment: shall be made in the Indian Coal Mines Regulations, 1926, the same having been previously published as required by sub-section (1) of section 31 of the said Act, namely:—

In the said Regulations-

- (1) After regulation 10, the following regulation shall be inserted, namely :-
  - "10A. If in any mine it is intended to conduct or extend the extraction or reduction of pillars at or to any point within fifty yards of any railway subject to the provisions of the Indian Railways Act, 1890, the owner, agent or manager of the mine shall, not less than sixty days before commencing such operations, give notice of such intention to the Chief Inspector and also to the Railway Administration concerned."
- (2) In regulations 11 and 12, after the figures "10", the word, figures and letter "or 1tA" shall be inserted.

H. C. PRIOR.

Secretary to the Government of India.

Statement No. 6.

### NOTIFICATION.

# Simla, The 7th October 1941.

No. M.-1055.—In exercise of the powers conferred by section 29 of the Indian Mines Act, 1923 (IV of 1923), the Central Government is pleased to direct that the following further amendments shall be made in the Indian Coal Mines Regulations, 1926, the same having been previously published as required by sub-section (1) of section 31 of the said Act, namely:—

In the said Regulations-

- (1) After regulation 22, the following regulation shall be inserted, namely :-
  - " 22A. No person shall be employed in a mine as manager unless he is paid by, and is directly answerable to, the owner of the raino."
- (2) To regulation 25, the following shall be added, namely :-
  - "No person shall be appointed under this regulation unless he is paid by the owner of the mine and is directly answerable to the manager of the mine."

II. C. FRIOR,

Secretary to the Covernment of India.

### Miscellaneous - contd.

Statement No. 7.

NOTIFICATION.

# New Delhi, the 27th October 1941.

No. M.-1855 (1).—The following draft of certain further amendments to the Indian Coal Mines Regulations, 1928, which it is proposed to make in exercise of the powers conferred by section 29 of the Indian Mines Act, 1923 (IV of 1923), is published as required by sub-section (I) of section 31 of the said Act for the information of all persons likely to be affected thereby and notice is hereby given that the draft will be taken into consideration on or after the 1st February 1942.

Any objection or suggestion which may be received from any person in respect of the said draft before the date specified will be considered by the Central Government.

#### Draft Amendments.

In regulation I of the said Regulations, sub-regulation (2) shall be re-numbered as sub-regulation (3), and before sub-regulation (3) as so re-numbered, the following sub-regulation shall be inserted, namely:—

"(2) They extend to the whole of British India, including Berar, and every reference therein to British India shall be construed as including a reference to Berar,"

H. C. PRIOR, Secretary to the Government of India.

Statement No. 8.

### DEPARTMENT OF LABOUR.

#### NOTIFICATION.

# New Delhi, the 6th November 1941.

No. M.-355.—In exercise of the powers conferred by section 29 of the Indian Mines Act, 1923 (IV of 1923), the Central Government is pleased to direct that the following further amendments shall be made in the Indian Coal Mines Regulations, 1926, the same having been previously published se required by sub-section (1) of section 31 of the said Act, namely:—

In the said Regulations-

- I. In sub-regulation (2) of regulation 15, after the word "streams", the word "tanks, buildings" shall be inserted.
  - II. After regulation 24, the following regulation shall be inserted, namely :--
- "24 A. (1) The manager of every mine shall ensure that a sufficient supply of proper materials and appliances for the purpose of carrying out the provisions of the Act and of the requisitions, rules and bye-laws made thereunder and ensuring the asfety of the mine and the persons employed thereing is always provided at the mine, and, if he he not the owner or agent of the mine, he shall report in writing to the owner or agent of the mine when anything is required for the aforestid purposes that in not within the scope of his authority to order.
- (2) A copy of every report made under sub-regulation (1) shall be kept in the office at the mine."

### Miscellaneous-contd.

#### Statement No. 8-contd.

- III. (i) Regulation 25 shall be re-numbered as sub-regulation (1) of that regulation and in the sub-regulation as so re-numbered the penultimate sentence shall be omitted.
- (ii) After sub-regulation (1) of regulation 25 as so re-numbered the following sub-regulation shall be added, namely:—
- "(2) Copies of all appointments made under sub-regulation (1) and all authorisations made under these regulations shall be entered in a bound paged book kept in the office at the mine.
- (3) Every manager shall on appointment satisfy himself that all persons already appointed under sub-regulation (1) or authorised under these regulations to discharge any functions are competent to perform the duties assigned to them.".
- IV. After sub-regulation (2) of regulation 42, the following sub-regulation shall be added, namely:—
  - "(3) The Chief Inspector may permit the refund-
    - (a) of the amount of any fee paid under sub-regulation (1) where the candidate has died before the examination or where the fee has been erroneously paid, and
      - (b) of any amount paid in excess of that specified in sub-regulation (1)."
- V. For sub-regulation (1) of regulation 53, the following sub-regulation shall be substituted, namely:—
- "(1) No person shall be employed, or be permitted to enter or remain for purposes of employment, in any mine, unless the mine is provided with at least two shafts or outlets—
  - (a) with which every scam for the time being at work has a communication so as to afford separate means of ingress and egress to the persons employed in the seam; and

(b) which are under the sole control of the manager of the mine."

VI. After regulation 70B, the following regulation shall be inserted, namely:—
"70C. At every sealed off fire area in any mine and every goaf or area of old working isolated by stoppings in any mine in which safety lamps are required to be used in complance with regulation 123, arrangements shall be made to ascertain from time to time atmospheric conditions behind the

atoppings:
Provided that this regulation shall not apply—

(a) to an area in a mine which is isolated by stoppings capable of resisting the force of an explosion, or

(b) to any mine or part of a mine where in the opinion of the Chief Inspector special difficulties exist which make compliance with the provisions of this regulation not reasonably practicable."

#### VII. In regulation 76-

- (i) In sub-regulation (2), for the figures "50": the figures "100" shall be substituted;
- (ii) after sub-regulation (3) the following sub-regulation shall be inserted, namely: -
  - "(4) Where the workings of two adjacent mines have each approached to within a distance of 100 feet of the respective boundary or boundaries of each mine property, or, in the case of a disputed boundary, within a distance of 100 feet of the boundary claimed by the owner of the adjacent mine, the owners of the two mines shall make a joint survey of the workings on either side of the common barrier and a copy of the plan showing the workings up to a date within six months shall be kept in the office at each of the mines."

#### VIII. In regulation 87-

- (i) for the words "or mice for the purpose of testing for earbon monoxide", the words "or other means approved by the Chief Inspector of detecting carbon monoxide gas" shall be substituted;
- (ii) for the words "safety lamps" the words "approved looked flame safety lamps" shall be substituted.
- IX. For regulation 87C, the following regulation shall be substituted, namely:-
- "87C. (1) Adequate means of extinguishing fire shall be provided at any part of a mine where timber, grease or other inflammable material is stored and at all insets where timber is used for the construction of the staging and at every pit-head, pit-bottom, engine room and electrical apparatus room.

### Miscellaneous-contd.

#### Statement No. 8-confd.

- (2) In every mine in which there are water mains or other pipes containing water under pressure, an adequate number of taps shall be provided on such mains or pipes. Hose pipe not less than 200 feet in length with the necessary fittings shall be kept readily available in the mine and the distance between two adjacent taps shall not exceed the length of the hose pipe provided.
- (3) In mines or parts of mines where in the opinion of the Chief Inspector arrangements for extinguishing a fire cannot reasonably be provided under sub-regulation (2), one or more of the following means shall be adopted :-
  - (a) portable fire extinguishers shall be provided and kept readily available and in good condition at suitable places underground : or
  - (b) portable water tanks fitted with hand pressure pumps and an adequate length of hose piping shall be provided; or
  - (c) adequate supplies of sand or incombustible dust shall be kent available at suitable places underground.
- (4) A competent person appointed in writing by the manager for the purpose shall examine each portable fire extinguisher provided under sub-regulation (3) at intervals not exceeding three months, and the result of each such examination shall be recorded in a book kept at the mine for the purpose.
  - (5) Water shall not be used for putting out electrical or oil fires."
- X. (i) Regulation 88 shall be re-numbered as sub-regulation (1) of that regulation and in the sub-regulation as so re-numbered the third sentence shall be omitted.
- ii) After sub-regulation (1) of regulation 88 as so re-numbered and amended the following subregulation shall be inserted, namely :--
- "(2) Every manhole shall be kept clean and whitewashed both inside and for a distance of not less than one foot around the aperture and the entrance of such manhole shall be kept unobstructed."

  - XI. For regulation 102, the following regulation shall be substituted, namely:—
    "102. No gunpowder or any other kind of explosive, except fuses and detonators, shall be issued for use in blasting operations in a mine or used in a mine except in the form of cartridges."
- XII. In regulation 106, for the words "secure closed cases" the words " securely locked cases" shall be substituted.
  - XIII. For regulation 112, the following regulation shall be substituted, namely :-"112. (I) When a hole has been charged, the explosive shall not be unrammed.
    - (2) No hole shall be bored at a distance of less than 12 inches from any hole where a charge has missired nor shall a second charge be placed in any such hole."
  - XIV. After regulation 116B, the following regulation shall be inserted, namely :--"116C. Where shots are fired electrically, the shot-firer shall-
    - (i) for the purpose of firing, use a cable which is not less than 60 feet in length;
    - (ii) before coupling the cable to the firing apparatus couple up the cable himself to the fuse or detonator wires;
    - (iii) take care to prevent the cable coming into contact with any power or lighting cable; and
    - (iv) himself couple the cable to the firing apparatus, and before doing so, see that all persons in the vicinity have taken proper shelter at a safe distance.
- XV. In regulation 118, for the words "firing; but when the shot has been fired by means of an electric apparatus", the words " missfiring; but when an electrical apparatus has been used for firing shall be substituted.
- XVI. Regulation 121 shall be re-numbered as sub-regulation (1) of that regulation and after subregulation (1) as so re-numbered, the following sub-regulation shall be inserted, namely :-
- "(2) Where the Chief Inspector is of the opinion that it is necessary for the adequate ventilation of a mine or for the prevention of danger from indammable or noxious gases, he may require that a mechanical ventilator shall be installed."

### Miscellaneous—contd.

#### Statement No. 8-concld.

- XVII. For regulation 122 the following regulation shall be substituted, namely:-
- "122. (1) In every mine in which inflammable gas has been found within the previous twelve months or where workings have been walled off on account of fire, the quantity of air shall, at least once in every month, be measured—
  - (i) in the main intake airways of every seam, as near as practicable to the downcast shaft;
  - (ii) in every split, as near as practicable to the point at which the split commences; and
  - (iii) in each ventilating district, as near as practicable to a point where the air is sub-divided at the end of a main split or where it enters the first working place.
- (2) The measurements referred to in sub-regulation (1) shall be entered in a book kept at the mine for the purpose."

H. C. PRIOR, Secy. to the Govt. of India.

#### Statement No. 9.

CIRCULAR No. 1 of 1941.

Dhanbad, the 20th February 1941.

FROM

W. KIRBY, Esq., B.Sc., M.I.MIN.E., CHIEF INSPECTOR OF MINES IN INDIA,

To

THE OWNER, AGENT AND MANAGER,

COAL MINE.

#### MEMORANDUM.

The attention of owners, agents and managers of mines, in which naked lights are in use, and where it is necessary to do work of any description in isolated areas of workings in which work has been temporarily discontinued, to the advisability of work persons using only enclosed lights, e.g., safety lamps and electric torches and not open lights of any description, in order to remove the danger of igniting timber or any other inflammable material. An inspection should also be made by an official at the completion of each relay, until the work in hand has been completed, to see that no fire has been started.

These simple precautionary measures are recommended with a view to preventing outbreaks of fire which may be accompanied by disastrous results where workers are only occasionally employed, and a fire may remain undetected for some considerable time.

W. KIRBY, Chief Inspector of Mines in India.

Miscellaneous-contd.

Statement No. 10.

CIRCULAR No. 2 of 1941.

Dhanbad, the 14th May 1941.

FROM

W. KIRBY, Esq., B.So., M.I.MIN.E.,

CHIEP INSPECTOR OF MINES IN INDIA.

To

TER OWNER, AGENT AND MANAGER,

COAL MINE.

#### MEMORANDUM.

Attention is invited to several serious accidents which have recently occurred in depillaring areas in which roof coal was being left unworked.

In the final operation of extracting coal from a "stock" or "stocks" the unsupported roof coal in the adjacent goaf or other wide places has collapsed unexpectedly and at the same time tha "stocks" and roof coal in the working area have also collapsed. These accidents have proved that props alone are insufficient, and it is considered that under such circumstances substantial "chocks" should be set at intervals of not more than 12 feet in the area between the edge of the goaf and the last whole pillar.

W. KIRBY.

Chief Inspector of Mines in India.

Statement No. 11.

CIRCULAR No. 3 OF 1941.

Dhanbad, the 20th May 1941.

FROM

N. BARRACLOUGH, Esq., B.So. (Hoss.),

CHIEF INSPECTOR OF MINES IN INDIA (Offg.).

To

THE OWNER, AGENT AND MANAGER,

COAL MINE.

#### MEMORANDUM.

The appended amended Bye-law No. 25 for soal mines has been published and is forwarded for information:---

"BYE-LAW 25:—Every person using a malety lamp shall take proper care of it and shall not place it within reach of the swing of any tool. If the lamp becomes damaged be shall at once carefully lower the flame until it is extinguished, and shall at the first opportunity report the damage to the overman or sirder."

N. BARRACLOUGH, Chief Inspector of Mines in India (Offg.).

Miscellaneous—contd.

Statement No. 12.

CIRCULAR No. 4 OF 1941.

Dhanbad, the 14th July 1941.

THE OWNER, AGENT OR MANAGER OF MINES.

In accordance with Section 5 (2) of the Indian Mines Act, 1923, Owners, Agents or Managers of mines are hereby informed that the following Act received the assent of the Governor General on the 10th April 1940, copies of which are obtainable by purchase from the Manager of Publications, Civil Lines, Delhi:—

Act No. XXIV of 1940.

An Act further to amend the Indian Mines Act, 1923, for certain purposes.

N. BARRACLOUGH.
Chief Inspector of Mines in India.

Statement No. 13.

CIRCULAR No. 5 of 1941.

Dhanbad, the 22nd December 1941.

FROM

W. KIRBY, Esq., B.So., M.I.MIN.E.,

CHIEF INSPECTOR OF MINES IN INDIA.

To

THE OWNER, AGENT AND MANAGER OF ALL COAL MINES.

In accordance with Section 5(2) of the Indian Mines Act, 1923, Owners, Agents and Managers of all coal mines are hereby informed that the following Notifications have been issued by the Government of India, Department of Labour, and published in Part I of the Gazette of India, dated 11th October 1941 and 5th November 1941. These Notifications have been included in the re-print of the Coal Mines Regulations which is at present in Press and will shortly be available for sale from the Manager of Publications, Delhi:—

### NOTIFICATIONS.

- No. M.-76, dated the 3rd October 1941, containing amendments to the Indian Coal Mines Regulations.
- (2) No. M.-1055, dated the 7th October 1941, containing amendments to the Indian Coal Mines Regulations.
- (3) No. M. 955, dated the 6th November 1941, containing amendments to the Indian Coal Mines Regulations.

W. KIRBY,
Chief Inspector of Mines in India.

### Miscellaneous—concld.

#### Statement No. 14.

CIRCULAR No. 6 of 1941.

Dhanbad, the 23rd December 1941.

### THE OWNER, AGENT AND MANAGER,

COAL MINES.

In accordance with Section 5(2) of the Indian Mines Act, 1923, Owners, Agents and Managers of mines are hereby informed that the Notification quoted below issued by the Government of India, Department of Labour, was published in Part I of the Gazette of India, dated the 6th December 1941.

### NOTIFICATION.

# Dated, New Delhi, the 3rd December 1941.

No. M.-1278.—In pursuance of sub-rule (2) of rule 1 of the Coal Mines Rescue Rules, 1939, the Central Government is pleased to fix the 10th December 1941 as the date on which rules 28 to 55 of the said Rules shall some into force.

H. C. PRIOR.

Secretary to the Government of India.

W. KIRBY.

Chief Inspector of Mines in India.

### Statement No. 15.

#### NOTIFICATION.

# Dated, New Delhi, the 1st March 1941.

No. M.-955.—In exercise of the powers conferred by section 12 of the Coal Mines Safety (Stowing) Act, 1939 (XIX of 1939), the Central Government is pleased to direct that the following further amendment shall be made in the Coal Mines Safety (Stowing) Rules, 1939, the same having been previously published as required by sub-section (1) of the said section, namely:—

"In sub-rule (3) of rule 18 of the said Rules, for the words "pension and leave salary", the words "pension, leave salary and passages" shall be substituted."

## S. H. ZAHEER,

Additional Deputy Secretary to the Government of India.

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