



DEPARTMENT OF MINES, INDIA

*Report of the Chief Inspector
of Mines in India under the
Indian Mines Act*

*For the year ending
31st Dec. 1924.*

*By R. R. SIMPSON, Esq., M.Sc.,
Chief Inspector of Mines in India.*



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CENTRAL PUBLICATION BRANCH
1925**

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FROM

R. R. SIMPSON, Esq., M.Sc.,
Chief Inspector of Mines in India,

TO

THE SECRETARY TO THE GOVERNMENT OF INDIA,
DEPARTMENT OF INDUSTRIES AND LABOUR,
SIMLA.

Dated Dhanbad, the 27th June 1925.

SIR,

I have the honour to submit the report upon the inspection of mines in British India for the year ending 31st December 1924.

INTRODUCTION.

It may be explained that this report relates entirely to the administration of the Indian Mines Act. A new Indian Mines Act (No. IV of 1923) came into force on the first day of July 1924. Under this new enactment, Act VIII of 1901 was repealed. The Act applies to British India only and not to the Indian States. The definition of a mine has been made more comprehensive and it now includes, subject to certain exemptions, all excavations where any operation for the purpose of searching for or obtaining minerals has been or is being carried on.

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 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. Mysore, where the Kolar goldfield is situated, and Hyderabad (Nizam's Dominions), have their own Departments of Mines. Detailed information of the mineral industries of those States is given in the annual reports of their respective Chief Inspectors of Mines.

Section I.—Persons employed.

During the year 1924 the daily average number of persons working in and about the mines regulated by the Indian Mines Act was 258,217, as compared with 234,864 in the previous year. This is an increase of 23,353 persons or 9.94 per cent. Of these persons 167,719 worked underground and 90,498 on the surface.

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One hundred and sixty-four thousand four hundred and two were adult males, 87,434 were adult females and 6,381 were *children under 12 years of age.

Those employed in coal mines numbered 187,088 which is 4,487 more than those employed in 1923.

In the coalfields of Bengal and Bihar and Orissa labour generally was sufficient for requirements. Wages remained stationery with a tendency to fall. Incidental payments not included in wages were curtailed. There was no serious epidemic disease and the general health of the labourers employed was good. In the Asansol and Jharia mining settlements the death rates were 18·7 and 20·83 per thousand, respectively, as compared with under 18 per thousand in the previous year.

At the collieries in Upper Assam owned by the Assam Railways and Trading Company the total number of adults working at the mines was 5,068, and during the year there were 2,314 recruitments and 844 repatriations. Except during the cultivating season there was no shortage of labour. Wages remained unaltered. There were no strikes or epidemics.

In other provinces the supply of mining labour appears to have been sufficient for requirements, and in some cases the supply exceeded the demand. At the tin mines in South Burma the remuneration of contract miners is said to have increased by about 50 per cent.

The number of women employed below ground in Indian mines increased from 52,676 to 60,375. Four-fifths of this increase took place at metalliferous mines where the number of women employed below ground increased by over 50 per cent., *i.e.*, from 12,540 to 18,759. This was due to greater activity in the mining of minerals other than coal, particularly manganese. Practically all women employed at metalliferous mines work in quarries where the conditions approximate to those obtaining in other employment such as railway or canal construction. Forty-one thousand six hundred and sixteen women were employed underground in coal mines, and, assuming that 15 per cent. of them worked in quarries, the number of women working in underground coal mines must have been approximately 35,000, or less than one-third of the total underground labour force. In the last report it was stated that proposals to prohibit the employment of women in underground mines had been strenuously opposed in certain quarters. It would appear that this opposition is becoming weaker, for recently a prominent general manager of coal mines, who possesses an unrivalled knowledge of Indian labour conditions, addressed to the Indian Mining Association a letter in which he expressed the opinion that "the time is now ripe for the withdrawal of women workers from Indian mines." Mining labour at the moment is plentiful and there would probably be less trouble now than at any time for many years in replacing women workers in mines.

* The provision by which the employment of children in mines is prohibited did not take effect until 1st July 1924 when the Indian Mines Act, 1923, came into force.

Figures showing the average output of coal per person employed are given below:—

	TONS OF COAL PER PERSON EMPLOYED.			
	Below ground.		Above & below ground.	
	1924.	1919-23.	1924.	1919-23.
British India	175	172	108	103
Bengal & Bihar	179	180	111	106
Assam	138	145	75	93
Baluchistan	57	58	33	33
Central Provinces	137	94	82	59
Punjab	81	69	51	40

It should be explained that in calculating the averages in the above table women and children are classed with adult male labourers. Comparing this table with that which appeared in the report for 1923 it will be noticed that the average yearly output of the coal miner in the Central Provinces increased from 94 to 137 tons or by 46 per cent. The former figure was unaccountably low and the new figure more reasonably approximates to the Bengal figure. A new form of return came into use in 1923, and it seems probable that the present figure is a more correct index of the capacity of the coal miner in the Central Provinces.

In Great Britain in 1923, the output of coal per person employed below ground was 286 tons, and per person employed above and below ground 229 tons. In the United States of America, where mining conditions approximate more closely to conditions in India than to conditions in Great Britain, the output of coal per person employed below ground during 1922 was 611 tons, and per person employed above and below ground 504 tons. The comparatively low output of the Indian miner is largely due to the fact that labour saving appliances are not in use at Indian mines to anything like the extent which they are used in mines in other countries. The use of coal cutting machines in Indian coal mines is slowly extending, but, if the full advantage of using such appliances is to be obtained, they should be combined with underground conveying and loading machines. At the present time not more than a single underground coal conveyor is being used in India. In other countries loading and conveying machinery is rapidly superseding hand labour, and there are mines in the United States of America where coal is mined, loaded and conveyed to the surface practically without any manual labour whatever. At such mines the daily output of coal is as great as the monthly output of a large Indian colliery, and this large output brings down the cost per ton to so low a figure that the persons employed enjoy exceptionally high wages.

In the table on page 5 figures are given of hours worked and wages paid at a large representative mine in each important mining field in India. For comparative purposes the same mines have been selected as were listed on page 3 of last year's report. It is to be feared that no great reliance can be placed upon the figures as the wages said to be paid at adjacent mines vary within wide limits; *e.g.*, at a large mine in the Jharia coalfield miners are said to earn Rs. 3-4 per week, at another mine in the same coalfield the figure given is Rs. 6 whilst at a third it is Rs. 7-8. Changes in the form of annual return are to be introduced which will it is hoped lead to more accurate figures of wages being obtained.

In last year's report reference was made to proposals for the limitation of the period of a shift of work in mines to twelve hours. All large underground metal mines in India are worked on a system of eight-hour shifts. At many of the larger coal mines, the whole of the departmental staff conforms to a shift system, and at one large coal mine in the Jharia coalfield a shift system of ten hours with two shifts in the twenty-four hours (8 A.M. to 6 P.M. and 8 P.M. to 6 A.M.) was introduced towards the end of the year. It may be hoped that the necessity to reduce the cost of mining will induce many others to follow this example.

His Excellency the Viceroy visited the Jharia coalfield on 12th December 1924. He was shown the surface effects of an underground fire, and afterwards went into a mine where the system of sand stowing to prevent fires was demonstrated, and coal cutting machinery was seen in operation. Inspections were made of a coke and bye-product plant, a power station, a hospital and miners' dwellings.

In November 1924 His Excellency the Governor of Bihar and Orissa spent several days in visiting and inspecting mines and works in the Jharia and Giridih coalfields.

Hours worked and wages paid at a large representative mine in each important mining field in British India.

Mining Field.	MINERS.		UNDERGROUND MALES OTHER THAN MINERS.		UNDERGROUND FEMALES.		SURFACE MALES.		SURFACE FEMALES.	
	Hours worked.	Weekly earnings.	Hours worked.	Weekly earnings.	Hours worked.	Weekly earnings.	Hours worked.	Weekly earnings.	Hours worked.	Weekly earnings.
Jharia coalfield (Bihar and Orissa)	40	Rs. A. P. 4 12 0	52	3 12 0	48	2 8 0	60	3 15 0	60	2 7 0
Raniganj (Bengal)	42	3 6 0	48	3 0 0	48	1 14 0	48	2 10 0	48	1 8 0
Girdih (Bihar and Orissa)	48	4 8 0	48	4 8 0	48	3 0 0	48	3 0 0	48	1 14 0
Assam	48	9 0 0	48	6 0 0	...	...	48	4 8 0	48	2 10 0
Punjab	52	6 2 6	58	7 14 7	33	3 13 3	58	5 0 6	...	...
Baluchistan	48	7 8 0	48	6 8 0	...	...	60	5 0 0	...	...
Pench Valley (Central Provinces)	35	4 0 0	50	2 12 0	50	2 4 0	55	2 10 0	55	1 11 0
Bihar and Orissa Mica	56	4 12 0	56	2 14 0	56	1 8 0	56	2 14 0	56	1 8 0
Madras Mica	42	2 6 6	42	2 3 0	42	1 5 0	42	2 6 6	42	1 5 0
Central Provinces Manganese	48	3 8 0	48	3 12 0	48	2 4 0	48	2 8 0	48	1 8 0
Madras Manganese	54	2 6 0	...	...	...	...	54	3 2 0	54	1 2 0
Burma Ruby	54	6 0 0	54	6 0 0	...	...	54	8 0 0	...	...
Madras Gold	48	10 8 0	48	4 0 0	...	...	48	11 8 0	48	1 5 0
Bihar and Orissa Iron	44	3 4 0	...	...	...	...	44	4 5 0	38	2 0 0
Burma Lead	43	9 0 0	52	18 0 0	...	...	51	9 4 0	...	...
Burma Tin and Wolfram	36	14 0 0	...	...	...	...	42	8 10 0	...	...

Section II.—Output of Minerals.

COAL.

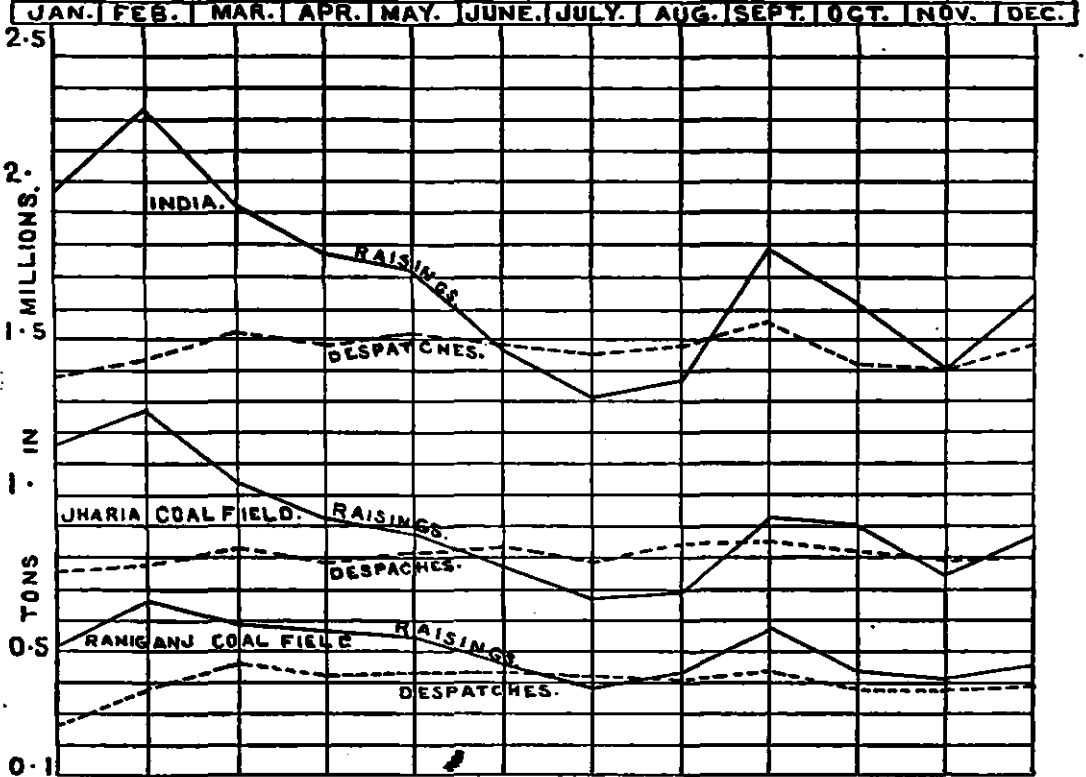
The statement given below shows the output of coal in the various provinces in British India during the years 1923-24 :—

	Output in tons.	
	1924.	1923.
Assam	334,502	325,949
Baluchistan	29,947	31,620
Bengal	5,031,655	4,621,578
Bihar and Orissa	14,100,113	13,171,983
Burma	255	1,271
Central Provinces	679,081	548,059
Punjab	80,423	63,501
TOTAL	20,256,034	18,763,967

The total output in 1924 was 20,256,034 tons which is 1,492,067 tons or 7.95 per cent. more than in the previous year. Except for the record year of 1919 when twenty-one and three quarter millions of tons of coal were raised the figure for 1924 was the highest yet recorded.

The opening stocks in 1924 were 2,991,244 tons and the closing stocks 2,913,028 tons or slightly less than the quantity in stock at the end of the previous year. In the chart inserted below the raising and despatches of coal are shown month by month, and it is noteworthy that it was only for two months during the rainy season that despatches were greater than output. There was the usual seasonal variation of output, and the curve is similar to that shown in the chart which appeared in last year's report.

RAISINGS & DESPATCHES OF COAL MONTH BY MONTH IN 1924



The total despatches of coal amounted to 17,459,219 tons, and 2,314,503 tons or 11.42 per cent. of the raisings were consumed on the collieries. These latter figures are of such interest that a comparison with the figures for earlier years may be given. With the introduction of electrical power at the collieries some ten years ago it was expected that the proportion of coal used on the collieries would gradually decrease, and between 1917 and 1919 the percentage did actually fall from 10.59 to 9.21. In 1920, however, the output of coal decreased by more than 4½ million tons and colliery consumption rose to 18.34 per cent. In 1922 it was 14.31 per cent., but since then it has decreased to 11.42 per cent. in sympathy with increased output. The actual figure is higher, for several large groups of collieries are supplied with power from Central Power Stations, and the coal used for generating electricity at

these Power Stations is not included in the figures for colliery consumption. The fact that the proportion of coal used on the collieries has increased is no doubt due to increases in the depth of the mines and the quantity of water pumped, and the extension in the use of labour saving machinery. Included in the figures is the quantity (estimated at 4 per cent.) of coal which miners are allowed for domestic purposes. Much of this is either sold or wasted, and the allowance could reasonably be reduced if a concerted effort were made.

The quantity of coal used for coking at the collieries was 560,528 tons and 61,324 tons of hard coke and 304,745 tons of soft coke were made. At a large number of collieries coal is now despatched from the collieries to coke making plants elsewhere, and this coal is included under despatches. These despatches of coal to coking plants amounted to 767,689 tons in 1924. The figures for coke given in this report relate only to coke made on the collieries. Analyses of the figures relating to the output of coal and the manufacture of coke will be found in Appendix I, Table II, pages 74 to 77.

The increase of output in Bihar and Orissa was 928,129 tons, and in Bengal 410,077 tons. The increase of 131,022 tons in the Central Provinces more than balances the large decrease of the previous year. There was a substantial increase in the Punjab, a small increase in Assam and a small decrease in Baluchistan. Figures of output for the two principal coalfields are as follows:—

	OUTPUT IN TONS.		Percentage of increase.
	1924.	1923.	
Jharia Coalfield	10,845,642	10,346,015	4.83
Raniganj Coalfield	6,035,347	5,557,424	8.59

It is interesting to note that, as was the case in the previous year, the output of the Raniganj coalfield increased at a greater rate than that of the Jharia coalfield.

With a view to helping the Indian coal industry to regain a footing in export markets which, as a result of war conditions, had been captured by coal from other countries a rebate on the export of coal and coke booked from collieries on the East Indian and Bengal Nagpur Railways to Calcutta was introduced from the 1st January 1924. The rebate amounted to 25 per cent. of the actual freight rate excluding terminal and extra charges. Early in the year the half rake system was modified so as to give a better service of wagons to the smaller colliery owners. From about the middle of the year the supply of wagons was sufficient for requirements. The production of coal exceeded the demand and prices steadily fell throughout the year.

In the Central Provinces in spite of the more favourable schedule of railway freights the improvement in the coal trade noticeable at the close of 1923 received its usual set-back in March when the seasonal demand from cotton factories ceased. There was keen competition with

Bengal collieries and imported coal. A good monsoon with the prospect of a heavy ginning season placed the market in a strong position at the end of the year.

The number of collieries using electric power increased from 91 to 99, and the aggregate horse power employed at collieries increased from 36,008 to 43,502. The number of coal cutting machines in use increased from 93 to 114, of which 89 were driven by electric power and 25 by compressed air. Fifty-five machines were at work in the Jharia coalfield, 48 in the Raniganj coalfield, 1 in the Bokaro coalfield, 4 in the Central Provinces, 3 in the Punjab and 3 in Assam. These machines under-cut a total area of 5,631,267 square feet which is not far from twice the area under-cut in the previous year by machines only slightly less in number. This result is no doubt to some extent due to the increased skill of operators, but it should be remembered that many of the machines were not introduced until the latter end of the year 1923. Assuming, as was done in the last report, that the thickness of coal worked averaged 9 feet the quantity of coal got by machines was rather less than two million tons or about nine per cent. of the total output. The average height of a machine-cut gallery is about 6 feet, and the under-cut is about 6 inches high. The latter enables the coal to be got down by blasting. Whatever the thickness of a seam may be, once it has been under-cut the whole of the coal can be got by blasting. In India where thick seams are the rule rather than the exception it is, therefore, difficult to say precisely what quantity of coal has been obtained by the aid of machines. The best index of progress is probably the number of square feet under-cut. In Appendix I, Tables 5, 6 and 7 statistics are given of the electric plant in use at mines in the various provinces of British India, and in particular mine fields.

During the year 1,738,414 lbs. of gunpowder, 376,571 lbs. of high explosives and 21,474 lbs. of "permitted" explosives were used at mines under the Act.

MICA.

The output of mica was 40,529 cwt. as compared with 31,605 cwt. in 1923. The increase was 28·23 per cent., and was shared proportionately by the two principal mica fields situated in Bihar and Orissa and Madras, respectively. There was a large and increasing demand for mica block and splittings.

MANGANESE ORE.

There was again a considerable increase (22·32 per cent.) in the output of manganese, the figures being 668,331 tons, as compared with 546,378 tons in 1923. Throughout the year there was a strong demand for all quantities of manganese. The average price was 14½*d.* per unit, f.o.b. Bombay or Calcutta, which is 4*d.* per unit more than the price during 1923. Ocean freights were unchanged at an average of 21*s.* 6*d.* per ton. The strong demand for Indian ores is said to have been due to shortage of the world's supplies brought about by political chaos in Russia and inadequate transport facilities in Brazil. Competition from the comparatively recently discovered deposits in the Gold Coast Colony has not yet made itself seriously felt owing to inadequate harbour facilities.

ROCK-SALT.

The output of rock-salt was 159,918 tons, as compared with 113,700 tons in 1923, the increase being 41 per cent.

LEAD-SILVER ORES.

The output of lead-silver ores from the Bawdwin mine in the Northern Shan States, Burma, was 287,777 tons in 1924, as compared with 245,892 tons in 1923. The increase was therefore 17·03 per cent. There was a production of 50,559 tons of refined lead, 1,200 tons of antimonial lead, and 5,287,960 ounces of refined silver. In addition 2,935 tons of copper matte and 18,650 tons of zinc concentrates were produced for shipment. The average prices obtained were Rs. 458-14-2 per ton of refined lead and Rs. 2-2 per ounce of refined silver.

In November a fire broke out in the Bawdwin mine. It became necessary to seal off the affected area, and this to some considerable extent impeded the working of the mine.

WOLFRAM AND TIN ORES.

There was a still further decline (15·25 per cent.) in the output of wolfram. The figures were 739 tons as compared with 872 tons in 1923. The output of tin increased from 1,021 tons in 1923 to 1,627 tons, *i.e.*, by 59 per cent., in the year under review. No mines were worked for wolfram alone. The price of wolfram fell from 12s. 6d. to 9s. 6d. per unit, whilst the price of tin steadily rose from £237 10s. 0d. to £267 10s. 0d. per ton. The average price of tin ore delivered at Penang was Rs. 2,158 per ton.

GEMS.

The output of gems decreased by 46 per cent., the figures being 101,097 carats, as compared with 187,010 carats in 1923. The quantities of each gem mined were as follows:—

Rubies	. . . . .	53,511 carats.
Sapphires	. . . . .	37,942 „
Spinel	. . . . .	9,644 „

The market for fine quality stones remained good, but there was a still smaller demand for the inferior qualities. The mining of hyalin quartz (rock crystal) was discontinued as the demand from China ceased.

GOLD.

The output of gold increased from 1,519 ounces in 1923 to 3,646 ounces in 1924. The price obtained varied from Rs. 70-9-4 to Rs. 59-10-8 per fine ounce. Prospecting operations were carried out on two blocks in the Ghooty taluk of the Anantapur district.

COPPER ORE.

Only 38 tons of copper ore were produced. At the Mosaboni mine in the Singbhum district development operations were continued, and the results are said to have been satisfactory. Active steps are being taken to bring the mine to the productive stage as soon as possible.

IRON ORE.

The production of iron ore was 430,805 tons, as compared with 292,033 tons in 1923, the increase being 48 per cent. These figures, however, do not include the iron ore used at the Jamshedpur steel works, supplies for which are obtained from mines in an Indian State which do not come under the operation of the Indian Mines Act.

CHROMITE ORE.

The output of chromite ore was 27,850 tons as compared with 25,233 tons in 1923. The increase was therefore more than ten per cent.

BAUXITE.

Compared with the figures for the previous year the production of bauxite was almost trebled; the figures were 115,355 cwt. in 1923, and 443,760 cwt. in 1924. Formerly the whole of the bauxite mined came from the Kaira district in Gujrat, but last year about one-ninth of the output came from the Jubbulpur district. It is from this mineral that aluminium is manufactured, and, although, there are in India numerous deposits of bauxite, some of which are in the neighbourhood of abundant water-power, projects for the manufacture of the metal have not yet materialized.

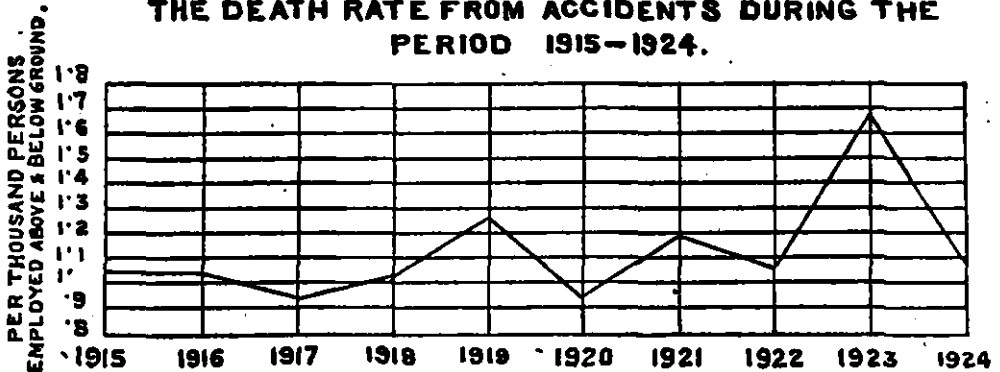
OTHER MINERALS.

There were increases in limestone, steatite, apatite, magnesite and clay, and decrease in fuller's earth, slate, barytes and ochre. For the first time there was a small production of asbestos. From the five stone mines from which figures were obtained 366,677 tons of stone were produced, the greater part from a single mine in the Thaton district of Burma.

Section III.—Accidents.

During the year 1924 at mines regulated by the Indian Mines Act, 1923, there were 233 fatal accidents, being a decrease of 4 on the number which occurred in 1923 and an increase of 13 on the average number in the preceding five years.

**CHART SHOWING
THE DEATH RATE FROM ACCIDENTS DURING THE
PERIOD 1915—1924.**



These accidents involved the loss of 281 lives or 106 less than in 1923. Of these persons 247 were males and 34 females. There were no disasters causing the loss of several lives at one time. In three cases 4 lives, in eight cases 3 and in twenty-three cases 2 lives were lost. There were in addition 410 serious accidents involving injuries to 424 persons. Were it not for the fact that the serious accidents were 90 more in number than in the previous year the fact that there were 50 fewer fatal accidents than in the previous year might be taken to show that greater care to avoid accidents was being exercised.

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

	Number of fatal accidents.	Percentage of total number of fatal accidents.
Misadventure	133	57.08
Fault of deceased	60	25.75
Fault of fellow workmen	7	3.01
Fault of subordinate officials	10	4.29
Fault of management	23	9.87
TOTAL	233	100.00

There was only one explosion, and it was due to an ignition of fire-damp caused by a defective safety lamp. Two persons were killed.

There was a decrease in the number of fatal accidents from falls of roof and sides. There were 122 such accidents, which was 14 less than in 1921, 13 more than in 1922 and 11 less than in 1923. In 35 cases the persons killed were illegally working in places other than those which had been allotted to them; in 20 cases the fatalities were due to falls of overburden in quarries which ought to have been avoided; whilst in 9 cases persons were killed by falls of roof which ought to have been prevented.

There were 24 fatal accidents in shafts, or two less than in the previous year. Two of them were caused by broken ropes. Eight of the accidents occurred whilst persons were riding in cages, and all but two of these would probably have been avoided if the cages had been fitted with rigid gates, as will be required under the new regulations. Nine were the result of falling in shafts, and of these one would have been avoided if the shafts had been properly fenced, and another would not have occurred if arrangements at the shaft top had not been defective. In two cases persons were fatally crushed by the down-coming cage while foolishly attempting to cross the bottom of the shaft.

There were 20 fatal accidents on haulage roads, as compared with 29 in 1923, and 20 in 1921. One of them was the result of a broken rope, three occurred whilst the victims were illegally riding on tubs, and eight were caused by tubs running wild on slopes.

There was a lamentable increase in the number of fatal accidents caused by explosives. In 17 separate accidents 26 lives were lost. Seven of the fatalities were due to the accidental ignition of gunpowder; four occurred whilst relieving holes were being drilled after misfires had occurred; three were the results of hang-fires; two were due to failure to stand clear when shots were being fired, and one was caused by an explosion which took place whilst rock, unknown to contain undetonated explosives, was being loaded. This, however, does not take into account seven accidents at coal mines by which 16 persons were killed by explosions of gunpowder in or about miners' dwellings. At the present time there are no rules under the Indian Mines Act regulating the storage and use of explosives before they are taken into the mines. Regulations on the subject are about to be made.

In two separate accidents two persons were killed by coal-cutting machinery.

Five accidents causing one death in each case were due to electricity, and four of them occurred at different times at the same mine. The latter were caused by faulty insulation of a 220 volt A. C. lighting system. The management of the mine has arranged to reduce the pressure to 110 volts.

It is apparently not generally understood by mine managers that, under section 33 of the Indian Electricity Act, it is necessary to send to the Electric Inspector notice of an accident *likely to have resulted* in loss of life or personal injury.

The death rate per thousand persons employed above and below ground was 1·09, while that of the preceding five years was 1·22. At coal mines only the rates were 1·23 and 1·33, and at mines other than coal 0·72 and 0·84. At all mines under the Coal Mines Act in Great Britain during the ten years ending with and including 1923 the average death rate per thousand persons employed was 1·08 as compared with 1·23 for Indian coal mines.

The Workmen's Compensation Act came into force during the year, and it may be hoped that its operation will result in both miners and mineowners being less willing to undertake risks.

The death rate per million tons raised at coal mines was 11·35, while that of the preceding five years was 13·07. At mines under the Coal Mines Act in Great Britain during the ten years ending with and including 1923 the death rate per million tons raised was 4·99.

Deaths occurring in each class of mine were as follows:—230 in coal mines, 15 in a silver-lead mine, 5 in tin and wolfram mines, 6 in mica mines, 13 in manganese mines, 4 in iron mines, 3 in a gold mine, 2 in a stone mine, 1 in a copper mine, 1 in a salt mine, and 1 in a magnesite mine.

Two persons lost their lives by explosions of gas, 87 by falls of roof, 64 by falls of side, 31 in shafts, 26 by explosives, 20 by haulage, 21 by other accidents underground and 30 on the surface.

The number of serious accidents reported increased from 320 to 410, *i.e.*, by 28 per cent. In this connection a leading superintendent of coal mines has recently written to me pointing out that in the case of injuries to the lower extremities the wearing of boots would have to a considerable

extent lessened the severity of the injuries. The suggestion is valuable. At underground metal mines many of the miners already wear boots, and these not only afford protection from minor injuries to the feet, but are also a safeguard against the parasite which causes hookworm disease. It is estimated that nearly 70 per cent. of coal miners in the Bengal coal-fields suffer more or less from this disease, and the loss of efficiency so caused must be very great. It would in the long run pay colliery owners to provide their workmen with boots, and they might begin with the subordinate officials, haulage attendants and machine operators.

A list of these fatal accidents appears in Appendix II, Table I. In addition to these there were 24 other accidents causing the death of 33 persons. These also appear in Appendix II, Table I, but are listed separately, reasons being given in each case for their exclusion from the statistical table.

Each fatal accident is described briefly in Appendix II, Table I, but the following are reported at greater length. The numbers refer to the numbers in the Appendix.

FALLS OF ROOF.

No. 31.—Bhulanbararee Coal Company, Limited's Bhulanbararee coal mine.

At this mine a coal seam nearly 30 feet in thickness has been worked by the usual Indian method of pillar and stall working. The area is geologically disturbed and the coal seam is traversed by slips and small faults. The coal in the lofty pillars which have been formed is soft and friable, and the roof shale is criss-crossed by numerous joints and cleavage planes. From time to time large blocks of coal, weighing from 15 to 20 tons, have fallen from the sides of the pillars, and it is evident from this and from the fact that some of the props are broken, that a slow "crush" has commenced. In December 1923 two persons were killed by a fall of side coal. Three months later two other persons were killed and one injured by a similar accident. In the present case the deceased who was a coal miner was alleged to have broken down a fence consisting of a single strand of wire and to have entered a place in which work had been stopped because it had become unsafe. He had presumably entered the place to load fallen coal, but he had taken a ladder there and was presumably about to cut coal from the side when several tons of roof stone fell on him and killed him instantly. The condition of the roof was so bad that his body was not recovered until two days after the accident. The wife of the deceased and another miner had a narrow escape and were slightly injured.

The accident might have been avoided if the fence erected had been of a more substantial character and if there had been closer supervision and more careful examination and testing of the roof and sides by the subordinate officials.

Since the accident the management have abandoned the part of the mine in which the accident took place. Under conditions such as those which prevailed the only method by which pillars could be extracted with reasonably safety would be a method by which the excavations made are

filled with sand or other material. In the Jharia coalfield where this mine is situated there are already some hundreds of millions of tons of coal standing in lofty pillars. Attempts to extract these pillars have been no more than partially successful. They have resulted in numerous fires and many million tons of coal have been irretrievably lost. For these reasons very little pillar extraction has been done in the more valuable seams during the last few years, and the area standing on pillars has gone on increasing. Owing to the greater cost involved the working of coal by the filling method has made little progress, and at only one colliery in the Jharia coalfield is it regularly employed. At the colliery where this accident took place a sand filling plant has been installed, but so far the sand has been used solely for filling galleries so as to form barriers behind which pillar extraction by the ordinary method can be carried on with lessened danger from fire. It may be hoped that when the present purpose has been fulfilled the use of the filling method will be extended to the ordinary process of pillar extraction.

No. 37.—The Bengal Coal Company, Limited's Chota Dhemu mine.

At this mine the Dishergarh seam is 14 feet thick. Above the coal is a band of carbonaceous shale 6 inches thick overlain by beds of shaly sandstone 5 to 6 feet thick. The pillars of coal formed in the first working were being extracted by a method in which the pillars were first split into four quarters or "stooks," and the "stooks" subsequently extracted or reduced to the smallest dimensions possible.

At the place where this accident took place a "stook" had been reduced to a size about 10 feet by 4 feet, and the assistant manager being of the opinion that it could not with safety be further reduced gave orders for no more coal to be removed from it and for the slack coal in its vicinity to be loaded up. In spite of these orders, however, the sirdar in charge accompanied by a sirdar from another part of the mine went to the place taking with them a gang of eight men. They began to cut and load coal from the "stook," and had been working there for an hour or two when both of the sirdars and a coal cutter were killed by the fall of a mass of roof stone, 30 feet \times 20 feet \times 6 feet thick.

The accident was due to wilful disregard of orders on the part of the two deceased sirdars. They were in receipt of salaries of Rs. 40 per month—a rate of pay much higher than is usual. They were no doubt skilful men, and presumably they thought that they knew better than the European assistant manager. It transpired at the enquiry that the loading gang consisted of men from their own village, and that an arrangement had been made by which the coal was to be loaded in the name of the head man of the gang, and that he and the rest of the gang were to receive Re. 1 each, and the sirdars the balance of the proceeds. For the avoidance of accidents of this kind we can only look to education and the development of a greater sense of responsibility. The latter sense will be stimulated by the system now in force by which sirdars are granted certificates under the Mines Act. The knowledge that disobedience of orders may lead to suspension or cancellation of a certificate will no doubt have a wholesome effect.

No. 67.—The Albion Coal Company, Limited's Albion coal mine.

In this accident two persons were killed by a fall of roof coal weighing about 8 tons. In a seam 24 feet thick galleries, 12 feet high, were being increased in height by blasting down 5 feet of roof coal. At the place of accident the gallery was no less than 19 feet in width. On one side of it the coal had been blasted down leaving what is known as a "loose end." On the other side of the gallery and parallel to it there was a smooth slip or joint. After the blasting had been done one of the gang was dressing down the loose coal when a large mass fell away between the loose end and the joint. This man escaped, but two others of the gang were killed.

In reporting on this accident the Inspector of Mines in India, No. 1 Circle said,—“The primary cause of the accident in my opinion was lack of proper care on the part of the management and particularly the overman. The manager had apparently issued no special instructions as to the method of taking down the roof coal, and in view of the width of the galleries at the place of accident and the presence of slips I think instructions should have been issued either to prop the roof coal ahead of the blasting or to take it down in every case up to a slip before any loading of coal was done. The overman in my opinion did not make a proper examination of the roof in the vicinity of the place of the accident on the day before the accident. Generally the management were to blame in that there was no official in charge on the shift on which the accident took place—the night shift. There was a night shift sirdar, but he had gone on leave for 3 or 4 days and no one had been appointed in his stead.”

The overman was dismissed and the manager was severely reprimanded. The mineowners sent to all managers in their employ a circular letter informing them of the facts in this case and warning them of the necessity for taking every possible precaution to ensure the safety of persons employed at their mines.

FALLS OF SIDE.

No. 94.—Messrs. P. Mukherjee and Company's New Peeperatand coal mine.

This accident occurred in a new inclined open cutting on the outcrop of a coal seam. The cutting (see Plan A.) was 130 feet in length, and its maximum depth was 50 feet. The strata cut through consisted of soft decomposed shale overlain by soil 6 feet thick. The sides were sloped at an angle of only 20 degrees from the vertical. The lower end of the cutting was waterlogged, and a pump was being installed to deal with the water. A party consisting of a mechanic and nine labourers was at work on the pump when a mass of ground, 50 feet in length, 7½ feet in height and 5 feet in width, fell from the side. Three of the party were killed and one was seriously injured.

Rain had saturated the ground and it was so soft that the slope of the sides should have been not less than 35 degrees instead of only 20 degrees from the vertical. The manager had managed the colliery before and must have been thoroughly familiar with the soft nature of the ground. In 1918 he was prosecuted and convicted for failing to keep secure the

side of another incline at the same colliery, where one person was killed. He was again prosecuted and convicted. Had there not been extenuating circumstances I should have made a representation to the Local Government with a view to the cancellation or suspension of his certificate.

No. 101.—Messrs: Osman Mustikhan & Company's Taungrun Stone Mine.

A number of miners were at work at the bottom of a stone quarry when a mass of rock, weighing about 40 tons, fell upon them. Two of the men were killed and three were injured.

This mine has only recently come under the operation of the Indian Mines Act, and its first inspection by an officer of the Mines Department was made after this accident had occurred. The inspection disclosed serious defects, of which perhaps the most important was the system by which the quarries were worked in a single face, 80 feet in height, instead of in benches of such a height as to render inspection and examination possible. It was from one of these lofty faces that the mass of rock which caused the accident fell, and the height of the face was such that it could not be properly examined to ascertain whether it was likely to fall or not. If the face of the quarry had been properly stepped and regularly examined by a competent official the accident might have been avoided. Although a good deal of mining work was being done in the quarries no subordinate staff was employed. The only official employed was the manager. No written records of the condition of the quarries in respect of safety were being made. In all the quarries there were places where the sides were insecure; the machinery was not fenced; and there were grave irregularities in the use of explosives.

No. 107.—The Burma Finance and Mining Company Limited's Kalonta tin mine.

This accident is illustrative of the careless methods of mining employed in Southern Burma. The tin and wolfram mines are situated amidst rugged hills covered with dense forest. Except in the case of a few of the mineral properties owned by the larger mining companies the mining work done consists largely of the washing of alluvial deposits on the sides of the hills. The work is chiefly carried on during the rainy season. Streams of water are conducted in channels over the alluvium in such a manner as to wash away the stony material and leave behind the heavier minerals. The persons who do such work are not as a rule regular employees. They are known as "tributers" and they are paid entirely by the amount of mineral they obtain. There are certain advantages in this system, but it renders discipline difficult to enforce, and as the miner is not paid directly for the dead work performed he naturally does as little of such work as possible. In this case a sluicing channel had been made on the side of a hill. The channel was 3 feet wide and 18 feet high on the higher side and 4 feet high on the lower side of the hill. The sides of the channel were vertical and consisted of alluvial ground containing bouldars. The scouring action of the water had uncovered a thin vein of quartz carrying tin, and deceased and his mate cut into the vein and undermined the side of the channel. A portion of the side fell upon the deceased and killed him instantly. The manager of the mine had visited

the place three days before the accident, and, seeing that the place was dangerous, had given orders that no further work was to be done there. He did not, however, have the place made safe or any safeguard erected. If he had done so the accident might have been avoided.

IN SHAFTS (ROPES AND CHAINS BREAKING).

No. 125.—Messrs. Villiers Limited's Bagdigi coal mine.

This accident occurred in a sinking shaft which had reached a depth of 442 feet. A loaded bucket had been raised within 15 feet of the top of the shaft when the rope broke and the bucket fell to the bottom of the shaft where out of thirteen persons employed four were fatally injured. The rope was one inch in diameter and made of best plough steel; it contained six strands of seven wires each with a hemp core, and it was manufactured by a reliable firm of rope makers. The weight of the loaded bucket would be from 4 to 5 tons which, on a calculated breaking strain of 38 tons, gave a factor of safety of $8\frac{1}{2}$. There was a good deal of water dropping in the shaft and the rope was greased weekly. It was examined daily and nothing wrong had been noticed; it had not been re-capped since it was put on $4\frac{1}{2}$ months prior to the accident. The fracture of the rope took place at a point 17 feet from the capping, and this part of the rope would just be entering the groove of the winding pulley when the bucket was at the highest point. An examination of the rope showed that it had been reduced from one inch to $\frac{1}{8}$ of an inch in diameter at a point 10 feet from the break. The exposed wires were rusty but corrosion does not appear to have been the only cause of the fracture. The majority of the wires composing the rope showed signs of twisting and had become brittle. This twisting can be accounted for by the spinning of the bucket. The principal cause of the accident appears, therefore, to have been the twisting of the wires brought about by the spinning of the bucket and its sudden arrest when steadied at the surface. After the accident the agent of the mineowners issued to all the managers of collieries under his control a circular instructing them to use in future only non-spinning ropes for sinking purposes. The local agent of the firm of rope makers who manufactured the rope was inclined to ascribe its failure to corrosion caused by acid water. A rope working in a wet shaft should certainly be greased more than once weekly.

IN SHAFTS (WHILST ASCENDING OR DESCENDING).

No. 127.—The East Indian Coal Company, Limited's Bararee coal mine.

The circumstances of this accident are somewhat mysterious. Three boys and a adult man were being raised in a shaft 360 feet deep. When the cage had been raised about 120 feet the boys fell to the shaft bottom and were killed. The man who was with them in the cage could give no explanation of what happened. He noticed the boys playing together as they entered the cage, but not afterwards. He further stated that the gate chains closing the two ends of the cage were closed, and that the cage was not jerked in any way whilst it was being raised. The onsetter at the shaft bottom affirmed that he closed all four chains before giving

the signal to raise the cage. The banksman stated that when the cage reached the surface two of the chains on one side were open.

Accidents of this kind are preventable. They would be avoided if the ends of cages were effectively closed by rigid gates. Under the new regulations shortly to be made it will be compulsory to fix rigid gates to all cages. It is regrettable that the management had not thought fit to anticipate this legal requirement.

No. 133.—The Tata Iron & Steel Company, Limited's Malkera coal mine.

Two persons were being hoisted in a shaft 440 feet deep. At the same time an empty tub was being lowered in the descending cage. Owing to one of the catches in the cage having been put out of action the empty tub fell from the descending cage, struck the ascending cage and caused its occupants to be thrown out and to fall to the shaft bottom 60 feet below.

The cages were fitted with chain gates, but it was not clear if they had been closed. After the accident one was found in position and the other broken. Since the accident rigid gates have been fitted in accordance with the new regulations which are about to be made.

The accident would have been avoided if the tub had not been placed in the cage against which the deceased were riding. Under the new regulations it will not be permissible for any one to ride in a shaft on or against a loaded cage.

After the accident a piece of wood was found under the catch intended to retain the tub on the cage. It may be presumed that this had been done either by the onsetter or the banksman with the object of holding up the catch while a tub was being placed on or taken off the cage, and that the person who placed the piece of wood there had forgotten to remove it. To use catches of this type is to invite accident. The inspecting officer noticed in several places on the sides of the shaft marks where tubs which had fallen from the cage had struck the side of the shaft, and he was informed that such had happened before. There is a type of catch which cannot be put out of action and it is to be hoped that it will be adopted generally.

Another point which came to notice was the fact that the onsetter and banksman had only been working at the shaft for 3 and 14 days, respectively. Both appeared to be lacking in intelligence. They had been appointed by the manager, but he had not seen them and apparently had not examined them to find out if they were competent, as he ought to have done.

IN SHAFTS (FALLING FROM THE SURFACE).

No. 134.—The Industry Coal Company, Limited's Industry coal mine.

A loaded cage on being raised to the surface was found to contain a derailed tub. Four men were engaged in re-railing the tub, and were using a bamboo lever 7 feet long when the lever slipped and one of the men was thrown against the shaft fencing with such force that he overbalanced and fell to the bottom of the shaft 110 feet below.

The fencing consisted of a rigid rod about 15 inches from the ground and fixed to uprights, and a wire rope fixed to the same uprights at a height of 2 feet 9 inches. The length of the span between the uprights allowed the rope to sag a certain amount. The fence was not considered to be adequate, and the manager of the mine was prosecuted and convicted for violation of General Rule 19 which requires shafts to be "properly" fenced.

After the accident a new fence, consisting of three rigid rods fixed to iron uprights, was erected. All shaft fences should be rigid and not less than 3'6" in height.

UNDERGROUND MACHINERY.

No. 185.—The Bengal Iron Company, Limited's Jitpur coal mine.

The use of coal cutting machines for driving galleries is attended with much greater risk than in the case of longwall workings. During the year their use caused two fatal accidents. In the present case a bar coal cutter was being drawn into position for the commencement of a cut. Deceased had erected a haulage post near the face of the gallery and close to the bar. He stood near the haulage post to steady it until it was sufficiently firm. As the haulage rope was tightened the roof coal over the post gave way and the post fell on to the bar. Deceased fell with it and was caught by the revolving picks and terribly mutilated.

It appears to have been the usual practice for the haulage post to be held in position until it became tight. It is a dangerous procedure, and in this case the manager agreed to issue written instructions that all persons shall retire behind the machine before it is set in motion. If this instruction is observed generally it will greatly reduce the risk attached to the operation of coal cutting machines in galleries.

In the course of the Inspector's inquiry it transpired that deceased and his mates had at the time of the accident been in the mine for 14 hours, and would in the ordinary course have remained about an hour longer. Accidents are more likely to occur in mines where workers are permitted to work for long periods at a time. I consider that no person should be employed on a coal cutting machine for a longer period than 10 hours.

MISCELLANEOUS ON SURFACE.

No. 228.—The Equitable Coal Company, Limited's Dishergarh East coal mine.

Dishergarh colliery is one of the oldest coal mines in the Raniganj coalfield, and the seams worked there are of the best quality found in India. The most productive seam has been the Dishergarh seam which is 10 feet thick and inclined at an angle of 1 in 5. The workings of this seam cover an area of about one square mile and extend from the outcrop to a depth exceeding 1,000 feet. In the early stages of development fatal mistakes were made by removing in the first working too great a percentage of the coal, and failing to sub-divide the workings by barriers which would enable outbreaks of fire to be isolated and con-

fined to that "panel" or section of the workings in which they might occur. These defects were not apparent until the first working was practically completed and it became necessary to extract the pillars. As a preliminary to this operation the mine was divided into two approximately equal portions by a line of brick stoppings extending from rise to dip. The workings on the east side of this line of stoppings are known as East Dishergarh colliery. In the pillars not more than about 50 per cent. of the coal originally in the seam had been left. When extraction was commenced it was found that as soon as a number of pillars had been taken out sufficient to cause the roof to sag over the "goaf" or empty space formerly occupied by the pillars the weight of the sagging roof could not be supported by the pillars on the edge of the "goaf" and they became crushed and had to be abandoned. When the main roof came down the collapse over-rode and crushed the surrounding pillars and rendered them impossible to extract. The crushing of the pillars induced spontaneous combustion, and the fires thus caused had to be sealed off by brick stoppings. Eventually practically the whole of the workings of this seam in East Dishergarh colliery had to be abandoned. They were subsequently re-opened in the hope that it would be possible to recover some of the pillars by a system in which the empty spaces are filled by sand hydraulically packed. Employing this system extraction was commenced at a depth of about 200 feet, while at the same time areas to the dip were being isolated by stoppings preparatory to the commencement of pillar extraction in them (see Plan B).

Prior to the accident some forty pillars had been extracted from an area approximately 300 feet by 250 feet, and the major portion of the "goaf" had been stowed with sand. Owing to floods in the Damuda river it had for some time been impossible to obtain sand, and an area of "goaf", 75 feet by 160 feet, had been only partially stowed. The support proved to be insufficient, for on 7th July a collapse occurred and an area measuring 530 feet by 430 feet subsided on the surface to a depth varying from a few inches to seven feet. A number of inhabited buildings were affected and in one of them a boy was killed by the collapse of a building in which he was sleeping. Three other persons sustained slight injuries and several others escaped narrowly. It is regrettable that the management had not taken the precaution of having the buildings vacated well in advance of any subsidence which might possibly occur.

The rush of air caused by the subsidence blew out a number of the stoppings isolating a fire, and although strenuous efforts were made to replace the stoppings they were not successful. Two months later another surface subsidence measuring 900 feet by 600 feet took place. This was 700 feet distant from the first subsidence and where the coal seam lies at a greater depth. The whole of these workings have since been abandoned.

The recovery operations which have been carried on during the last few years have been accompanied by considerable risk, and it would appear that a stage has been reached when the risk involved is no longer justified.

The original lay-out of the workings at this colliery enabled a high output of coal to be maintained for a number of years, but has resulted

in the loss of, perhaps, 40 per cent. of the coal in the seam, and the expenditure of large sums of money on remedial measures which proved of little avail.

No. 230.—Rai Sahib Mathuraprosad Motilal & Co.'s Jamai coal mine.

In this case a coal cutter was walking from the mine to his dwelling after dark when he fell into a disused incline cutting and was killed. A flimsy fence had been erected some two to three feet from the edge of the incline. It consisted of wooden posts supporting a single strand of iron wire. The fence was considered to be inadequate, and the manager was prosecuted and convicted for a breach of General Rule 19.

Mine owners and managers are warned that the rules in respect of the fencing of mines are in future to be applied with greater strictness. The Inspectors of Mines have been instructed to require mine owners to maintain fences as detailed below :

- (i) All abandoned shafts shall be fenced by a brick or stone-wall, not less than $3\frac{1}{2}$ feet high;
- (ii) All inclines and abandoned quarries shall be fenced either with a brick or stone-wall or with iron posts supporting not less than three strands of wire. The posts shall be not more than 10 feet apart and the fencing not less than $3\frac{1}{2}$ feet high;
- (iii) All working shafts shall be fenced to a height of not less than $3\frac{1}{2}$ feet either with a brick or stone-wall or with a rigid fence of iron or wood;
- (iv) Unless it is of a rigid and substantial character and not less than $3\frac{1}{2}$ feet high the fence of a working quarry shall be placed at a distance of not less than 15 feet from the edge of the quarry.

No. 231.—The Burrakur Coal Company, Limited's Charanpur coal mine.

This accident was of an unusual type. A building consisting of a workshop, store and office had been constructed. It was complete except for the laying of the concrete floor and the weatherproofing of the roof of the workshop. The contractor was inside the workshop showing one of the workmen what he should do, and six persons were engaged in plastering the roof when the walls of the building suddenly collapsed, and the roof fell on and killed the two men inside the building. The persons on the roof fell to the ground, but were not seriously injured.

The foundations of the building were 26 inches wide and 2 feet deep, and were composed of 9 inches of concrete with brick and mortar above. The walls were 20 inches thick and were constructed of brick with mortar made from lime and ashes. The roof consisted of steel rails set on edge, 5 feet apart, and projecting over the walls to a distance of 16 inches. These were strapped together by rods 7 feet apart. The space between the rails was jack-arched with bricks and mortar, and the whole roof was covered with a thin layer of concrete to make it weatherproof. The total thickness of the roof varied from 5 to 7 inches. The materials used

in the construction of the building were up to the standard necessary for such work, and the walls were sufficiently strong to sustain the weight of the roof.

The ground surrounding the building was, owing to the excessive rain which fell during the year, water-logged and, as it consists of some ten feet of soft earth, it is more than probable that the soft ground allowed the walls in one corner of the building to sink, thus bringing about the collapse. This theory is supported by the fact that at that corner there were found cracks in the foundations.

It was not considered that the management were to blame in any way, but the accident shows the necessity for deep and heavy foundations where buildings are being erected on soft soil.

EXPLOSIVES.

No. 2 in the non-statistical list.—The Burrakur Coal Company Limited's Bankola coal mine.

In 1923, twenty-five persons were killed by explosions of gunpowder in or about miners' dwellings. Although inquiries into the circumstances of these accidents were held yet, as there are no rules under the Indian Mines Act regulating the storage and use of explosives before they are taken in the mines, they were placed on the non-statistical list, it being considered that they came under the Explosives Act. One of these accidents, causing five-deaths, was at Bankola coal mine.

In the present case the same contractor for the manufacture of gunpowder as in the above mentioned accident was concerned. Unknown apparently to the management this contractor had been manufacturing gunpowder in certain rooms of an inhabited coolie barrack. In the middle of the night the gunpowder exploded and demolished the building. Four persons were killed and three injured by the falling debris and three other persons were severely burnt by the flames.

Under the new draft mining regulations the irregular practices which caused this and other similar accidents are prohibited.

Section IV.—Prosecutions and additions to the Act.

PROSECUTIONS.

Judgment was given in the following prosecutions during the year. Unless otherwise stated "general rule" means a rule under Notification No. 864-68-20, dated the 10th March 1904, being rules for the working of coal mines.

The owners (four) and Manager of Messrs. Tularam Nathuram's Barari-Joyrampur colliery were prosecuted for violating Rule 1 (a) by employing persons in a mine without a second outlet. They were fined Rs. 20 each.

The manager of B. P. Singh's Kalipahari colliery was prosecuted under general Rule 3 for failing to keep secure the roof of a travelling road which was liable to collapse and endanger the lives of work persons.

He was found guilty and fined Rs. 75 or, in default, to undergo simple imprisonment for four weeks.

The manager of J. N. Dass & Company's West Baraboni colliery was prosecuted under general Rule 3 for failing to make and keep secure the sides of travelling roads and working places in the mine. He was found guilty and fined Rs. 40 or, in default, to undergo simple imprisonment for three weeks.

The manager of P. Mukherjee & Company's New Peepratand colliery was prosecuted under general Rule 3 for failing to keep secure the sides of an incline cutting. He was found guilty and fined Rs. 100 or, in default, to undergo rigorous imprisonment for one month.

The manager and overman of the Ramjibanpur Coal Company's Ramjibanpur colliery were prosecuted under Rule 3 and Special Rule 27, and general Rules 3 and 4 (b) and special Rule 41, respectively. The manager was charged with (a) not keeping secure the roofs and sides of travelling roads and working places and (b) for not appointing a competent person to make inspections regularly. The overman was charged with (a) not recording a true report of the condition of the roof and sides and (b) failing to examine the roof and sides of travelling roads and working places and failing to keep them secure. Both accused were found guilty. The manager was fined Rs. 300 and the overman was fined Rs. 100, or, in default, to suffer simple imprisonment for one month.

The owners (three) and the manager of the South Barora Coal Company's South Barora colliery were prosecuted under Rules 4, 7 and 19 for (a) not appointing a competent person to make inspections regularly and (b) not fencing disused workings and the entrance to an incline. One of the three owners and the manager were fined Rs. 25 each and the other two owners were fined Rs. 50 each.

The manager and an overman of the Burrakur Coal Company, Limited's Loyabad colliery were prosecuted under general Rule 8 and special Rule 42, respectively, for not providing sufficient manholes for places of refuge and not keeping them in a clear condition. The manager was fined Rs. 15 and the overman was acquitted.

The agent and manager of Rai Sahib Mathura Prosad Motilal & Company's Jamai colliery were prosecuted under general Rule 9 read with sections 16 (I) and 39 of the Indian Mines Act, 1923, for not keeping an accurate plan of the mine. They were acquitted.

Prosecutions were instituted under Rule 12 of Government of India Notification No. 864-68-20, dated 10th March 1904, for failure to submit plans of abandoned or discontinued workings of mines:—

- (a) Sahana Coal Company, Limited, owners of Haripur or Sahana colliery were fined Rs. 50.
- (b) The owners (two) of the New Phularitand colliery were fined Rs. 20 each.
- (c) The owner of Baromasia colliery was fined Rs. 15.
- (d) The owner of the Chatai colliery was fined Rs. 30.
- (e) The owner of Dutt's Jasnadih colliery was acquitted.

- (f) The case against the owner of Bright Bahiardih colliery was dropped as the accused had taken up his residence in an Indian State and could not be extradited for an offence under the Indian Mines Act.

The surveyor and a shotfirer of the Bansjorah Coal Company, Limited's Bansjora colliery were prosecuted under Rule 13 (b) and special Rule 5 for committing an act likely to endanger the safety of other persons. The surveyor was acquitted and the shotfirer was fined Rs. 30.

The owners of Central Doogdha colliery were prosecuted under section 15 of the Indian Mines Act, 1923, for not appointing a qualified manager. They were fined Rs. 150.

The owners of the Pure Kusunda Colliery Company's Pure Kusunda colliery were prosecuted under section 15 of the Indian Mines Act, 1923, read with general Rule 47, for not appointing a qualified manager. A fine of Rs. 50 was imposed.

The manager of the Industry Coal Company, Limited's Industry colliery was prosecuted under general Rule 19 for not providing a proper fence at the top of a shaft. He was fined Rs. 15.

The manager of Suratand colliery was prosecuted under Rule 19 for not providing an adequate fence round a disused shaft. He was acquitted.

The agent and manager of Rai Sahib Mathura Prosad Motilal & Company's Jamai colliery were prosecuted under general Rule 19 for not providing an adequate fence at a disused incline. The agent was acquitted and the manager was fined Rs. 100.

The owners (two) of the East Bhulanbararee colliery were prosecuted under general Rule 47 for not appointing a qualified manager. They were fined Rs. 25 each.

The surveyor and assistant surveyor of Rai Sahib Mathura Prosad Motilal and Company's Jamai colliery were prosecuted under special Rule 24 read with section 39 of the Indian Mines Act, 1923, for failure to make an accurate plan of the mine. The surveyor was fined Rs. 100 and the case against the assistant surveyor was withdrawn as his whereabouts could not be traced.

The manager and a mistri of the North West Coal Company Limited's Ena colliery were prosecuted under special Rule 5 for using a defective rope for lowering tubs on an incline. They were acquitted.

The manager of the Netra Manganese Company Limited's Netra Manganese mine was prosecuted under Rule 8 of Government of India, Notification (Department of Commerce and Industry), No. 11793-103, dated 30th December 1908, as amended in Notification No. M.-498, dated the 29th June 1922, for not reporting the occurrence of a fatal accident. He was fined Rs. 5.

The General Manager of the Tata Iron & Steel Company, Limited's Lohara iron ore mine was prosecuted under general Rules 8 and 9 for not submitting a notice of an accident and of death from injuries. It subsequently transpired that he had left India and, moreover, was not the person responsible for the omission. The case was therefore withdrawn.

The owner of the Surangi mica mine was prosecuted under section 16 of the Indian Mines Act, 1901, for not submitting a notice of opening of the mine within the prescribed time. He was fined Rs. 40.

The owner, agent and manager of Ram Rich Pal's Jhonka mica mine were prosecuted under Rules 6 (a), 17 and 18 of Notification No. 6436-152, dated 2nd September 1911, for not keeping secure the roofs and sides of working places. The owner and the manager were fined Rs. 25 and Rs. 75 respectively. The case against the agent was withdrawn as there was a doubt of his being actually the agent.

The agent and manager of Messrs. B. P. Byramji & Company's Aulaghari manganese mine were prosecuted under Rules 18 and 19 of Notification No. 6436-152, dated 2nd September 1911, for not keeping the sides of open workings properly sloped or stepped and for not removing sufficiently overburden and loose ground. They were fined Rs. 250 each or, in default, to undergo rigorous imprisonment for three months, but were acquitted on appeal.

Twenty-seven prosecutions were instituted for failure to submit annual returns within the prescribed date or for submitting inaccurate returns. In 19 cases fines aggregating Rs. 640 were imposed; 7 cases were withdrawn, in 5 of them owing to the whereabouts of accused not being known, and in one case the accused was acquitted.

Babu Kali Pada Mukherjee was prosecuted under section 35 (c) of the Indian Mines Act, 1923, for falsifying dates in certificates in order to represent that he had the requisite practical experience to entitle him to sit for the examination for colliery managers' second class certificates of competency. He was fined Rs. 25.

Information was received of the following prosecutions instituted by colliery officials against their subordinates :—

The Colliery Superintendent of the Assam Railways and Trading Company, Limited prosecuted 3 coal-carriers of Tirap colliery under special Rules 5, 6 and 9 for consuming intoxicating drink in the mine and committing an act likely to endanger the safety of other persons and of the mine. They were fined Rs. 15 each.

The manager of Messrs. Damagurria Coal Company Limited's Damagurria colliery prosecuted 2 men under special Rules 5 and 7. One was fined Rs. 25 and proceedings against the other man were stayed, under section 249, Criminal Procedure Code, as he was confined to hospital for a long time.

The Zamindary manager of the Seebpore Coal Company, Limited's Pretoria colliery prosecuted a miner under special Rule 6 for unlawfully interfering with the signals used in the working of the mine, thus causing an accident which resulted in the death of his wife. He was sentenced to 15 days rigorous imprisonment.

The manager of the Eastern Coal Company, Limited's Bhowra colliery prosecuted a pump-khalasie under special Rule 6 for unlawfully operating a winding engine. He was fined Rs. 200.

The colliery superintendent of the Assam Railways and Trading Company, Limited prosecuted three boiler firemen of Burra-Golai, Namdang and Tirap collieries under special Rule 64 for not maintaining the water

in boilers at the proper level. They were fined Rs. 10, Rs. 10 and Rs. 20 respectively.

The agent of the Bengal Bhatdih Coal Company, Limited's Bhatdih colliery prosecuted 2 machinememen under special Rules 80, 82 and 83 for using unlooked safety lamps underground. They were fined Rs. 5 each.

The manager of the Dhemo Main Collieries Limited's Dhemo Main colliery prosecuted a miner under special Rule 21 and under section 237 Indian Penal Code. He was convicted and fined Rs. 15 under each charge.

The colliery superintendent of the Assam Railways and Trading Company, Limited reported that a Chinaman at Burra-Golai colliery was arrested and prosecuted by the police under section 19 (F), Arms Act, for being in unauthorised possession of explosives. He was fined Rs. 50.

A shotfirer of Osman Mustikhan's Taungzun stone mine was prosecuted under section 286, Indian Penal Code, for endangering human life by neglecting to warn other workmen of danger from misfired shots. He was found guilty and fined Rs. 100 or, in default, to undergo rigorous imprisonment for 1½ months.

A blaster at the Indian Iron and Steel Company, Limited's Gua iron ore mine, was prosecuted under section 304-A, Indian Penal Code, for doing a rash and negligent act. It was proved that he threw a lighted cigarette into a box containing gunpowder which was being taken from the magazine to the mine. The gunpowder was ignited and a man was fatally burned. The accused was found guilty and sentenced to six months' rigorous imprisonment.

ADDITIONS TO THE ACT.

Under section 46 (1) of the Indian Mines Act, 1923, certain mines were exempted from the operation of the Act by the Government of India, Department of Industries and Labour, in Notification No. 1051, dated 26th July 1924. The notification is reproduced in Appendix No. IV.

Rules were framed under section 30 of the Indian Mines Act, 1923, by the Governments of Bengal, Bihar and Orissa, Central Provinces, Bombay, Madras, Assam, Burma and Baluchistan, and were published in the local gazettes. Those made in Bihar and Orissa are reproduced in Appendix No. IV and are identical with the rules made in Bengal. Those made in other Provinces are similar. Arrangements have been made whereby copies of the rules are stocked for sale by the Government Press at the headquarters station in each Province.

For the information of mine owners it may be stated that publications of the Central Government as apart from those of Local Governments in respect of mining legislation are available by purchase from the Manager of the Central Publication Branch, No. 8, Hastings Street, Calcutta.

During the year Special Rules under section 21 of the Indian Mines Act, 1901, were established at 18 coal mines and 13 manganese mines.

Section V.—General Remarks.

HEALTH AND SANITATION.

The Asansol Mines Board of Health held twelve ordinary meetings and three special meetings during the year. Dr. Tomb, the Chief Sanitary Officer of the Board, reported that there were 535 cases of cholera with 317 deaths and 75 cases of small-pox with 10 deaths during the year, as compared with 345 cases of cholera with 183 deaths and 54 cases of small-pox with 5 deaths during the previous year. No other disease was epidemic during the year, and the general health of the Mining Settlement was good, the death rate being 18·7 per thousand, and the infantile death rate 145·7 per thousand. The education of the children in the Lower and Upper Primary Schools of the Settlement in elementary hygiene by means of the Board's primer "Saral Sasthya Tathwa" was continued with satisfactory results.

The Jharia Mines Board of Health held thirteen ordinary meetings and four special meetings during the year. Dr. G. W. Thompson was on leave from March to November, and Dr. A. G. Wright, the Assistant Medical Officer of Health, officiated for him during that period. There were 1,479 cases of cholera with 578 deaths and 503 cases of small-pox with twenty deaths, as compared with 553 cases of cholera with 177 deaths and 737 cases of small-pox with 46 deaths in the previous year. The death rate was 20·83 per thousand and the birth rate 30·27 per thousand. In the Board's laboratory 728 samples of food were analysed and 311 of the samples were found to be more or less adulterated. In the worst cases prosecutions were instituted and the offenders were convicted and punished. The task of improving the housing of colliery labourers occupied much time and attention and satisfactory progress has been made, most of the worst houses having been eliminated.

In November of the year under review the Topchanchi Head Works of the Jharia Water Board were opened by His Excellency the Governor of Bihar and Orissa. The retaining dam is 970 feet long and 78 feet high, and the lake impounded is over a mile in length and two-third of a mile in width. The distance to the coalfield is sixteen miles. By the end of the year water was available for 81 collieries with an estimated population of 36,000 persons in the Sijua-Kirkend part of the coalfield. The scheme is designed to supply a population of 200,000 persons with twelve gallons of water daily per head. Analyses of the water show that after filtration its purity is beyond reproach. The total cost of the project will be about 66 lakhs of rupees. Since March 1921 the Board's Engineer has been Mr. J. S. Jackson, to whose skill and energy the successful completion of the scheme is largely due.

Statistics of rainfall have been recorded as follows:—

	1924.	1923.
<i>Jharia Coalfield—</i>		
Jealgora	53·69	48·76
Topchanchi reservoir	70·32	65·90
Dhanbad	65·15	45·58
<i>Raniganj Coalfield—</i>		
Asansol	70·75	56·10
<i>Giridih Coalfield—</i>		
Giridih	73·29	66·55

Mining Education.

The Principal of the Bengal Engineering College has reported that in the examination for the Diploma in the principles of mining held at the end of the college course in March 1924 seven students appeared and all were granted Diplomas. In the Junior Course twenty were enrolled at the beginning of the session, nineteen sat for examination, and thirteen qualified for promotion to the Senior Course. Twenty-nine students entered the preliminary or preparatory class on the mining side, and of these twenty-one were promoted. The annual mining camp was pitched in November-December 1924 at Central Kirkend in the Jharia coalfield. The usual courses of practical work were undertaken and visits of inspection were paid to various plants and appliances of technical interest in the vicinity. The total number of students in camp was 51, of whom ten were special survey students.

The three-years courses of instruction were in full swing at the lecture centres at Raniganj, Sitarampur, Jharia and Sijua. The teaching staff was Mr. L. Millar assisted by Babus Sachidananda Mukherji and Dharendra Nath Sirkar in Bengal and Mr. Griffith Jones assisted by Babus N. N. Sen and B. K. Palit in Bihar and Orissa. The number of students enrolled was 452, of whom 141 attended the sessional examinations and 18 passed the final examination. Messrs. G. Miller and W. Kirby were the examiners. Courses of ten lectures in Hindi to overmen and sirdars were delivered at five centres in the Jharia coalfield and at one centre in the Mugma section of the Raniganj coalfield. A total of 352 students attended the lectures. These classes are becoming more and more popular as a means of preparation for the examinations for sirdars' certificates which are now being held. The lecturers were Babus A. C. Banerjee, K. K. Bose and S. N. Bhattacharjee. Similar lectures in Bengali were delivered by Babu Jadu Gopal Banerjee at three centres in the Raniganj coalfield, and the Government of Bengal was asked to sanction the same extension and improvement of the Vernacular lecture courses as has already been carried out in Bihar and Orissa.

In the Pench Valley coalfield in the Central Provinces the average attendance at the mining classes was 80, of whom 40 sat at the terminal examination and nine passed. Mr. G. O. Burgoyne was the lecturer on mining and Mr. S. G. Nafde gave the instruction in elementary science.

BOARD OF EXAMINERS FOR COAL MINE MANAGERS' CERTIFICATES.

Five meetings of the Board of Examiners were held during the year. The non-official members were Messrs. J. B. Wardlaw and J. Mackie. Eight first class certificates of competency were granted in lieu of British certificates.

At the examination for colliery managers' certificates of competency held at Dhanbad on the 18th, 19th, 20th, 25th, 26th and 27th February 1924, 112 candidates sat for first class and 339 for second class certificates. Certificates of competency were granted to ten first class and twenty-nine second class candidates.

The examiners for the first class examination were Messrs. R. Heron and T. C. Murray and for the second class examination Messrs. C. E. Ashcroft and J. T. Mackenzie. Dr. D. Penman and Mr. J. H. Lang, Inspectors of Mines in India, acted as official examiners and secretary and assistant secretary, respectively.

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

The Bengal Mining Board held one meeting during the year. The subjects discussed by correspondence were (a) Draft Rules under sections 32 and 33 of the Workmen's Compensation Act, 1923, (b) Draft Rules under section 30 of the Indian Mines Act, 1923. The non-official members of the Board were Messrs. W. Graham and J. B. Wardlaw.

The Mining Board, Bihar and Orissa, held one meeting during the year. The subjects discussed at the meeting and by correspondence were (a) introduction of a system of shifts, (b) Draft Rules under section 30 of the Indian Mines Act, 1923, (c) Draft Regulations under section 29 of the Indian Mines Act, 1923, (d) exemption of mines from the operation of the Indian Mines Act, 1923. The non-official members of the Board were Messrs. R. G. M. Bathgate and J. Mackie.

The Central Provinces Mining Board did not meet during the year. The subjects discussed by correspondence were (a) nomination of an officer of the Mines Department as a member of the Central Provinces Mining Board, (b) the appointment of a whole-time Inspector of Mines for the province.

MINING AND GEOLOGICAL INSTITUTE OF INDIA.

The total membership of the Mining and Geological Institute of India at the end of the year, including subscribers, was 354. In addition to the annual meeting four ordinary meetings were held. A visit was paid to the Coal Dust Experimental Station, Dhanbad, where demonstrations of the inflammability of Indian coal dust were given. The Committee appointed last year to inquire as to the types of breathing

apparatus and systems of training best suited to Indian conditions submitted their report. In it they gave preference to the Meco-Briggs apparatus and the colliery brigade system of training. They recommended that the first rescue station should be built in the Jharia coalfield, and they commended the project to the Indian Mining Association and the Indian Mining Federation. At the invitation of the Central Provinces Prospecting Syndicate Limited the members of the Central Provinces branch visited the Kandri manganese mine.

At the Empire Council of the Mining and Metallurgical Engineering Institutions, which is the outcome of the Empire Mining and Metallurgical Congress held at Wembley near London last year, the Institute was represented by Mr. E. S. Tarlton and Dr. J. Coggin Brown.

Three parts of the Transactions were published. The Government prize for the best paper accepted for publication during the year was awarded to Dr. Cyril S. Fox for his paper "The Raw Materials for the Iron and Steel Industries of India." The silver medal was awarded to Dr. D. Penman for his paper "Notes on the Coal Dust Danger in Indian mines;" the gold and bronze medals were not awarded. The local libraries at Asansol and Jharia continued to be under the charge of Mr. J. H. Lang and Mr. J. E. Phelps, respectively.

THE ASSOCIATION OF COLLIERY MANAGERS IN INDIA AND THE INDIAN MINE MANAGERS ASSOCIATION.

During the year some of the subjects dealt with by the Association of Colliery Managers in India were (a) prosecutions of workmen for breaches of the special rules made under section 21 of the Indian Mines Act, 1901; (b) the Workmen's Compensation Act, 1923; (c) Draft Rules under section 30, Indian Mines Act, 1923; (d) proposals for the building of a hospital in the Jharia coalfield; (e) proposals for converting the Dhanbad Sub-division into a District; (f) the supply and distribution of explosives in the coalfields; (g) the examinations for sirdars' certificates; and (h) proposed legislation for the investigation and settlement of trade disputes. Two members of the Council gave evidence before the Indian Coal Committee.

The Indian Mine Managers' Association was formed during the year 1922-23, and at the end of the year 1923-24 there were 62 ordinary members and four associate members. Some of the subjects dealt with by the Association during the year 1923-24 were (a) the examination and certification of underground sirdars, (b) the regulations to be made under the Indian Mines Act, 1923.

AMBULANCE WORK IN THE COALFIELDS.

Classes in first aid to the injured were held at eight centres in the Jharia coalfield and six centres in the Raniganj coalfield. 378 students attended and 232 gained St. John Ambulance First Aid certificates. The lecturers were Drs. N. Bannerji, J. Bose, Biswas, S. K. Biswas, H. K. Chakravarty, S. P. Chatterjee, D. P. Dass, C. C. Ghosh, N. L. Mukherji, S. K. Mukherji, L. M. Rakshit, D. N. Tewari. The examinations were conducted by Drs. J. S. Bradford, W. O'Connor, F. T.

Simpson and A. G. Wright. To both lecturers and examiners the thanks of the coal mining community are due.

LAND ACQUISITION (MINES) ACT, 1885.

The number of original cases disposed of altogether at the end of 1924 stood at 507, twenty-three of which were cases disposed of during the year. There were eighteen applications for modifications of restrictions and twenty complaints of violations of restrictions, all of which were dealt with. The Act applies to Bengal and Bihar and Orissa only. In other provinces where Government owns the minerals Local Governments were advised as to the restrictions necessary in cases where mine-owners have sought permission to work minerals beneath railways, villages, etc.

THE COAL DUST COMMITTEE.

The Committee appointed by the Government of India to investigate the dangers arising from coal dust in Indian mines submitted its first report which, under the orders of Government, was subsequently published. In the report a record is given of the experiments made at the experimental gallery at Dhanbad, and it is stated that although the experiments are insufficient to enable the Committee to form definite conclusions as to the relative inflammability of the coal seams tested yet they serve to show that ignitions and explosions can readily be obtained. It is pointed out that many additional experiments will have to be carried out before the investigation can be considered complete. Among the provisional recommendations made by the Committee are the following:—

- (a) The systematic removal of coal dust from the mine.
- (b) The provision of a supply of clay tamping in convenient places in mines where blasting is done.
- (c) The correct placing of shot-holes and the careful estimation of the charge of explosive necessary in each case.
- (d) That where " Permitted " explosives are used in accordance with the regulations:—(1) that all shot shall be fired by electrical means; (2) the aggregate charge in any number of shots fired simultaneously shall not exceed that specified for the kind of " Permitted " explosive used; (3) that before a shot is fired the shot-firer shall examine with a locked safety lamp or other apparatus approved for the purpose by the Chief Inspector of Mines the place where the shot is to be fired and all contiguous accessible places within a radius of 20 yards, and if inflammable gas is found shall remove it, or if the place is dry and dusty shall render the dust harmless within a radius of 10 yards of the place where the shot is to be fired; (4) that no shot shall be fired in coal which has not been under-cut, over-cut or side-cut, and that the length of the shot-hole shall be at least six inches less than the length of the cut.

- (e) That every mine in which safety lamps are required to be used, or in which regular inspections have to be made for inflammable gas, should be provided with an artificial means of ventilation, preferably a mechanical ventilator.
- (f) That in seams in which inflammable gas has been found during the previous twelve months no narrow advance gallery should be driven more than 6 feet ahead of the widened gallery, and that in every gallery the ventilating current should be conducted as near to the working face as is practicable.

Dr. D. Penman, officiating Inspector of Mines, No. 1 Circle, continued to be in charge of the experimental work, and it is due to his enthusiasm and hard work that the considerable progress made has been obtained.

THE INDIAN MINES ACT (IV OF 1923).

The new Mines Act came into force during the year under review, and, as its provisions are not yet widely understood, a few explanatory notes on it may appropriately be given.

- (1) All excavations where any operations for the purpose of searching for or obtaining minerals have been or are being carried on are now "mines" under the Act. Mines of certain minerals and prospecting operations are exempted under the conditions set forth in Notification No. M.-1051, dated 26th July 1924, by the Government of India; a copy of the Notification is reproduced in Appendix No. IV.
- (2) Under section 14 it is necessary to send to the District Magistrate notice of opening a mine, but the form of the notice has not yet been prescribed. The notice should be sent in duplicate, and should specify the name and situation of the mine, the names and addresses of the owner and the manager, and the date on which the mine was opened.
- (3) It is now necessary to give notice not only of accidents, explosions or ignitions, but also of outbreaks of fire and irruptions of water.
- (4) Children may not be employed either underground or on the surface. They may not enter the underground part of a mine.
- (5) Rules have been made by Local Governments. A copy of the rules made by the Government of Bihar and Orissa is given in Appendix No. IV. The rules made by the Government of Bengal are identical with those made by the Government of Bihar and Orissa. The rules made by other Local Governments are similar.
- (6) Regulations are about to be made by the Government of India, and when they have been made model bye-laws will be framed for the guidance of mineowners. Until such time as regulations and bye-laws have been made the rules and

special rules made under the Act of 1901, so far as they are not inconsistent with the provisions of the Indian Mines Act, 1923, remain legally in force.

OFFICIAL DUTIES, 1924.

Mr. R. R. Simpson was Chief Inspector of Mines. He was on leave from 22nd September to 14th November 1924.

Mr. D. Penman was Inspector of Mines, No. 1 Circle. He was on leave from 16th May 1924 to 15th November and rejoined on 17th November 1924.

Mr. J. H. Lang was Inspector of Mines, No. 2 Circle. He was on leave from 30th March to 1st October 1924. He officiated as Chief Inspector of Mines from 10th October to 14th November and rejoined his substantive post on 18th November 1924.

Mr. F. B. Kerridge was Electric Inspector of Mines until 5th February 1924 when he was granted leave until 4th April 1924 and thereafter retired from the service.

Mr. H. M. Mitra was appointed Electric Inspector of Mines on 1st May 1924.

Mr. G. S. Cameron was Junior Inspector of Mines. He officiated as Inspector of Mines, No. 1 Circle, from 16th May 1924 to 17th November 1924.

Mr. W. Kirby was Junior Inspector of Mines. He officiated as Inspector of Mines, No. 2 Circle, from 30th March 1924 to 21st September 1924 and again from 10th October to 17th November 1924. He also officiated as Chief Inspector of Mines from 22nd September to 9th October 1924.

Mr. N. G. Chatterjee was Junior Inspector of Mines throughout the year.

Mr. N. Barraclough was Junior Inspector of Mines. He officiated as Inspector of Mines, No. 2 Circle, from 22nd September to 9th October 1924.

Of the 1,804 mines at work it was not possible to inspect more than 763. Practically all important mines were inspected and many of them several times. 1,539 separate inspections were made. Enquiries were held in the case of nearly all the fatal accidents and certain of the serious accidents. All complaints of breaches of rules were investigated. As in other years several inspections were made on the invitation of mine-owners, superintendents or managers anxious for consultation and advice on safety matters.

In four cases of danger, not expressly provided for under the rules, orders under section 19 were issued requiring the remedy of the danger and the withdrawal from the mines of all workers not reasonably necessary for the purpose of removing the danger. The owners of six small coal mines were required, under General Rule 47, to appoint managers holding first or second class certificates.

PLAN A.

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For certain reasons it was not found possible to commence during the year the examination and certification of underground sirdars. Good progress with this work has since been made.

I have the honour to be,

SIR,

Your most obedient servant,

R. B. SIMPSON,

Chief Inspector of Mines in India.

APPENDICES.

APPEN
STATISTICS OF MINES

Table

Number of mines regulated by the Indian Mines Act, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT. CO tons.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.	
Assam . . .	Lakhimpur . . .	7	5	2	1	...	7	20	274,479
	Naga Hills . . .	1	...	1	...	...	1	5	60,063
	Sibsagar . . .	...	...	...	...	...	...	...	...
	TOTAL . . .	8	5	3	1	...	8	25	334,562
Baluchistan . . .	Kalet . . .	...	...	...	...	...	...	...	...
	Loralai . . .	1	...	1	...	1	...	...	158
	Quetta-Pishin . . .	7	...	7	...	...	4	4	4,111
	Sibi-Khost . . .	5	1	4	...	...	5	5	25,678
TOTAL . . .	13	1	12	...	1	9	9	29,947	
Bengal . . .	Bankura, Raniganj . . .	4	...	4	1	...	2	2	8,650
	Birbhum . . .	3	1	2	...	...	1	1	18,566
	Bardwan . . .	243	212	31	17	23	215	507	5,004,439
	TOTAL . . .	250	213	37	18	23	218	510	5,031,655
Bihar and Orissa . . .	Hazaribagh-Bokaro . . .	7	6	1	2	1	5	10	1,343,500
	Giridih . . .	11	5	6	...	3	11	21	768,690
	Jharia . . .	11	4	7	5	6	11	13	153,200
	Ramgarh Maunbhurn-Jharia . . .	4	...	4	2	...	...	...	5,905
	Raniganj . . .	354	203	151	25	33	252	631	10,692,442
	Raniganj . . .	99	23	76	13	17	86	144	868,203
	Palaman, Daltonganj . . .	1	1	...	1	...	...	...	4,691
	Sambalpur, Hingir-Bampur . . .	1	1	...	...	...	1	1	49,445
Carried over . . .	488	243	243	42	60	366	820	13,986,076	

DIX I.
AND MINERALS.

No. 1.

of workers and output of minerals, during the year 1924.

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND.								ABOVE GROUND.				Grand total below and above ground.	
Miners.				Others.				Total below ground.	Adult males.	Adult females.	Children.		Total above ground.
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
AI.													
1,778	176	...	1,948	...	...	...	...	1,948	1,280	370	82	1,682	3,630
145	...	...	145	325	...	...	325	470	357	7	...	364	834
...
1,917	176	...	2,093	325	...	...	325	2,418	1,587	377	82	2,046	4,464
...
24	...	...	24	...	...	...	...	24	38	...	...	38	62
66	...	...	66	9	...	...	9	75	26	...	...	26	101
300	...	...	300	225	...	...	225	425	317	...	6	333	748
290	...	...	290	234	...	...	234	524	381	...	6	397	911
51	74	...	125	12	2	...	14	189	42	43	...	85	224
38	14	...	50	1	1	...	2	52	34	22	1	57	109
12,348	6,458	19	18,825	5,840	3,337	13	9,190	28,015	10,065	4,940	248	15,273	43,288
12,435	6,548	19	19,000	5,833	3,340	13	9,206	28,206	10,161	5,005	249	15,415	43,621
3,581	3,680	10	7,221	3,991	1,579	63	5,633	12,854	4,491	1,729	432	6,653	19,506
3,853	1,391	12	5,256	580	71	...	651	5,907	1,296	479	5	1,780	7,687
357	260	4	621	113	32	5	150	771	613	448	33	1,094	1,865
66	43	8	112	4	12	...	16	128	390	230	16	636	764
23,408	16,944	41	39,393	8,896	3,944	54	12,894	52,237	22,069	11,049	1,314	34,432	86,789
2,459	1,149	...	3,608	961	556	...	1,517	5,125	2,365	1,265	43	3,673	8,798
36	21	4	61	17	...	...	17	78	178	148	26	353	430
94	...	...	94	119	130	...	249	343	114	29	...	143	466
39,654	29,438	74	66,366	14,681	6,324	123	21,127	77,498	31,536	15,377	1,869	48,783	126,375

APPEN
STATISTICS OF MINES

Table

Number of mines regulated by the Indian Mines Act, number.

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.	
Bihar and Orissa.	Brought forward	488	243	245	48	60	366	820	CO tons. 13,888,076
	Sonthal, Fargansa-Jainty	7	4	3	1	...	...	...	78,547
	Raniganj	6	5	1	...	...	...	...	195,489
	TOTAL	501	252	249	49	60	366	820	14,100,112
Central Provinces.	Betal	7	...	7	3	4	2	2	1,111
	Chanda, Ballarpur	6	6	...	1	1	5	3	127,545
	Chhindwara, Pench Valley	35	8	27	3	4	29	32	478,696
	Narsinghpur, Mohpand	1	1	...	...	...	...	...	76,526
	Yeotmal	1	1	...	...	...	...	...	...
	Hoshangabad	2	...	2	1	1	...	...	3
TOTAL	52	16	36	8	10	36	42	679,061	
Burma	Mergui	1	...	1	...	1	...	...	255
Panjab	Jhelum	18	...	18	4	6	11	13	52,942
	Mianwall	1	...	1	...	...	2	2	18,787
	Shahpur	2	...	2	1	1	2	2	8,693
	TOTAL	21	...	21	5	7	15	17	80,422
	GRAND TOTAL (COAL) FOR 1924	846	487	359	81	102	652	1,423	20,256,094
	GRAND TOTAL OF PRECEDING YEAR	942	494	448	68	182	724	1,462	18,763,967
	DIFFERENCE	-96	-7	-89	+18	-80	-72	-39	+1,492,067

DIXI—contd.

AND MINERALS—contd.

No. 1—contd.

of workers and output of minerals, during the year 1924—contd.

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND.								ABOVE GROUND.				Grand total below and above ground.	
Miners.				Others.				Total below ground.	Adult males.	Adult females.	Children.		Total above ground.
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
32,854	23,438	74	56,366	14,681	6,324	122	21,127	77,493	31,536	15,977	1,809	48,782	126,275
243	183	...	376	138	66	...	204	580	149	67	...	216	796
383	154	...	537	87	57	...	144	681	320	137	...	458	1,139
83,480	28,725	74	57,279	14,906	6,447	122	21,475	78,754	32,005	15,581	1,870	48,456	128,210
15	18	...	28	23	8	...	31	59	58	60	...	118	177
608	15	7	625	409	42	22	478	1,098	508	106	48	657	1,755
1,369	810	16	1,695	487	733	5	1,225	3,920	972	759	120	1,851	4,771
248	...	...	248	369	251	...	620	868	458	72	...	530	1,398
9	...	...	9	...	...	...	...	9	121	20	9	150	159
4	8	1	18	...	...	...	...	13	4	7	...	11	24
2,248	846	24	2,618	1,288	1,034	27	2,349	4,967	2,121	1,024	172	3,317	8,284
8	...	...	8	...	...	...	...	8	15	...	...	15	23
519	2	...	521	342	...	4	346	867	407	...	2	409	1,276
47	...	...	47	7	...	...	7	54	79	7	10	96	150
50	...	...	50	25	...	...	25	75	74	...	...	74	149
616	2	...	618	374	...	4	378	996	560	7	12	579	1,575
50,994	30,795	117	81,906	22,960	10,831	166	33,957	115,873	46,890	21,994	2,391	71,215	187,088
48,991	30,999	397	80,387	19,182	9,137	288	28,607	108,994	47,167	23,276	3,165	73,607	182,601
+2,003	-204	-280	+1,519	+8,798	+1,694	-122	+5,360	+6,879	-337	-1,281	-774	-2,392	+4,487

STATISTICS OF MINES

Table

Number of mines regulated by the Indian Mines Act, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.	
Burma	Mandalay	1	...	1	...	...	...	...	IRON Tons: 828
	Northern Shan States.	5	...	5	1	...	...	...	58,666
	TOTAL	6	...	6	1	...	...	...	59,014
Bihar and Orissa	Singhbhum	5	2	3	2	1	3	3	305,238
Central Provinces.	Chanda	1	...	1	...	1	1	1	66,553
	GRAND TOTAL (IRON ORE FOR 1924.)	12	2	10	3	2	4	4	490,805
	GRAND TOTAL OF PRECEDING YEAR	9	...	9	2	...	3	3	292,033
	DIFFERENCE	+3	+2	+1	+1	+2	+1	+1	+198,772

DIX I—contd.

AND MINERALS—contd.

No. 1—contd.

of workers and output of minerals, during the year 1924—contd.

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND								ABOVE GROUND.					Grand total below and above ground.
Miners.				Others.				Total below ground.	Adult males.	Adult females.	Children.	Total above ground.	
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
ORE.													
...	...	...	...	...	...	...	...	...	127	...	...	127	127
326	...	...	326	...	...	...	...	326	448	...	...	448	774
326	...	...	326	...	...	...	...	326	575	...	...	575	901
664	497	11	1,372	...	...	...	...	1,372	1,107	610	46	1,763	3,135
174	63	...	237	...	...	...	...	237	361	102	27	460	717
1,364	500	11	1,935	...	...	...	...	1,935	1,948	802	79	2,818	4,753
1,375	301	19	1,695	...	...	...	...	1,695	1,358	756	76	2,185	3,880
-11	+250	-8	+240	...	...	...	...	+210	+590	+46	-3	+633	+873

APPEN
STATISTICS OF MINES

Table

Number of mines regulated by the India Mines Act, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.	
Bihar and Orissa.	Singhbhum . . .	1	...	1	...	...	...	...	MANGA- Tons. 435
Bombay . . .	Panch Mahals . . .	6	...	6	4	...	2	2	46,401
Central Provinces.	Balaghat . . .	93	2	91	62	6	22	23	270,151
	Bhandara . . .	18	...	18	12	1	2	3	74,869
	Ghindwara . . .	10	1	9	6	3	2	3	32,715
	Jabalpore . . .	2	...	2	2	...	...	...	1,850
	Nagpur . . .	47	3	44	23	3	19	20	204,285
	TOTAL . . .	170	6	164	105	13	45	49	533,870
Madras	Bellary . . .	1	...	1	...	...	...	...	5,424
	Kurnool . . .	1	...	1	1	...	...	...	390
	Visagapatam . . .	7	...	7	1	2	5	5	31,811
	TOTAL . . .	9	...	9	2	2	5	5	37,625
	GRAND TOTAL (MANGANESE) FOR 1924.	186	6	180	111	15	52	56	668,331
	GRAND TOTAL OF PRECEDING YEAR.	79	4	75	30	4	27	30	546,378
	DIFFERENCE . . .	+107	+2	+105	+81	+11	+25	+26	+121,953

DIX I—*contd.*AND MINERALS—*contd.*No. 1—*contd.*of workers and output of minerals, during the year 1924—*contd.*

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND.								Total below ground.	ABOVE GROUND.				Gran total below and above ground.
Miners.				Others.					Adult males.	Adult females.	Children.	Total above ground.	
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
NESE ORE.													
9	15	...	24	...	...	...	...	24	4	13	4	21	45
1,000	741	...	1,741	272	87	...	359	2,100	305	128	146	579	2,679
3,401	3,865	106	7,372	312	154	...	467	7,839	1,050	719	42	1,811	9,650
885	1,461	74	2,420	24	15	...	39	2,459	311	235	5	551	3,010
496	524	5	1,025	7	8	1	16	1,041	193	63	14	270	1,311
74	89	7	170	...	...	...	...	170	18	21	5	44	214
2,411	2,438	3	4,852	122	6	...	128	4,080	858	518	22	1,398	6,378
7,267	8,377	193	15,839	466	183	1	650	16,489	2,430	1,556	68	4,074	20,563
166	133	...	319	7	...	...	7	326	8	...	...	8	334
14	...	...	14	...	...	...	...	14	8	7	...	15	29
715	401	150	1,266	...	...	...	...	1,366	153	19	...	172	1,438
915	534	150	1,599	7	...	...	7	1,606	169	26	...	195	1,801
9,191	9,667	345	19,203	745	270	1	1,016	20,219	2,908	1,723	238	4,869	25,088
5,438	5,723	233	11,439	263	351	...	303	11,742	2,240	1,361	266	3,867	15,629
+3,758	+3,944	+62	+7,764	+477	+235	+1	+713	+8,477	+668	+342	-28	+962	+9,459

APPEN
STATISTICS OF MINES

Table

Number of mines regulated by the Indian Mines Act, number

PROVINCE.	District and mineral field.		Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
				Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.	
Burma	Northern States.	Shan	1	1	...	...	...	...	...	LEAD Tons. 287,777*
	Southern States.	Shan	2	2	
	GRAND TOTAL (LEAD ORE) FOR 1924.		3	3	...	...	...	...	...	810,266
	GRAND TOTAL OF PRECEDING YEAR.		3	2	1	2	...	1	4	245,925
	DIFFERENCE		...	-1	+1	-2	...	-1	-4	+64,361
Burma	Northern States.	Shan	...	...	...	...	...	...	...	ANTIMONIAL Tons. 1,200
	TOTAL OF PRECEDING YEAR.		...	...	...	...	...	...	...	...
	DIFFERENCE		...	...	...	...	...	...	...	+1,200

* Amount of refined lead

DIX I—contd.

AND MINERALS—contd.

No. 1—contd.

of workers and output of minerals, during the year 1924—contd.

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND.								Total below ground.	ABOVE GROUND.				Grand total below and above ground.
Miners.				Others.					Adult males.	Adult females.	Children.	Total above ground.	
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
ORE.													
2,240	2,240	187	...	...	187	2,377	891	...	...	891	3,268
175	175	...	...	...	...	175	108	11	...	114	289
2,415	2,415	187	...	...	187	2,552	994	11	...	1,005	3,557
1,844	1,844	158	...	...	158	2,002	752	...	...	752	2,754
+571	+571	-21	...	...	-21	+550	+942	+11	...	+953	+806
LEAD.													
Labour	figures	included	with	those	for	Lead	Ore	...	...	...	...	...	...
...
...

extracted 50,559 tons.

APPEN
STATISTICS OF MINES

Table

Number of mines regulated by the Indian Mines Act, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.	
SILVER.									
Ozs.									
Burma . . .	Northern Shan States . . .	...	...	...	...	...	...	5,287,711
Madras . . .	Anantapur . . .	...	...	...	...	...	...	249
	GRAND TOTAL (SILVER) FOR 1924 . . .	...	...	...	...	...	...	5,287,960
	GRAND TOTAL OF PRECEDING YEAR . . .	...	...	...	...	...	...	4,844,042
	DIFFERENCE . . .	...	...	...	...	...	...	+443,918
TIN									
Tons.									
Burma . . .	Mergul . . .	17	...	17	3	...	2	2	190
	Tavoy . . .	69	2	67	48	4	7	7	1,433
	Thaton . . .	1	...	1	4
	TOTAL . . .	87	2	85	46	4	9	9	1,627
	TOTAL OF PRECEDING YEAR . . .	41	...	39	18	1,021
	DIFFERENCE . . .	+ 46	...	+46	+33	+4	+9	+9	+ 606

DIX I—contd.

AND MINERALS—contd.

No. 1—contd.

of workers and output of minerals, during the year 1924—contd.

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.														
BELOW GROUND.								ABOVE GROUND.					Grand total below and above ground.	
Miners.				Others.				Total below ground.	Adult males.	Adult females.	Children.	Total above ground.		
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.							
LEAD ORE.														
Labour figures included with those for Lead Ore.														
Labour figures included with those for Gold.														
...	
...	
...	
GOLD.														
385	20	3	408	21	...	...	21	429	82	16	...	98	527
1,757	23	5	1,790	15	...	...	15	1,805	835	33	20	948	2,753
11	8	...	19	...	...	...	...	19	...	...	...	...	19
2,153	58	8	2,217	36	...	...	36	2,253	917	109	20	1,046	3,299
2,247	35	3	2,285	30	2	...	32	2,317	569	45	19	633	2,950	
-84	+21	+5	-68	+6	-2	...	+4	-64	+348	+64	+1	+413	+349	

APPEN
STATISTICS OF MINES

Table
Number of mines regulated by the Indian Mines Act, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.	
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.		
Burma	Mergui . . .	...	...	...	...	...	...	...	WOL Tons. 739
	Tavoy . . .	...	...	...	...	4	4	...	
	Thantou . . .	...	...	...	...	...	...	...
	TOTAL	...	...	...	...	4	4	739	
	GRAND TOTAL (WOLFRAM) FOR 1924.	...	...	...	...	4	4	739	
	GRAND TOTAL OF PRECEDING YEAR	...	...	...	...	...	...	872	
	DIFFERENCE	...	...	...	...	+4	+4	-133	
Bihar and Orissa.	Singbhum . . .	...	...	...	...	...	...	...	GOLD. Ozs. ...
Madras	Anantapur . . .	3	2	1	1	2	1	1	3,646	
	GRAND TOTAL (GOLD) FOR 1924.	3	2	1	1	2	1	1	3,646	
	GRAND TOTAL OF PRECEDING YEAR.	2	1	1	...	...	...	...	1,519
	DIFFERENCE	+1	+1	+1	+2	+1	+1	+2,227

DIX I—contd.

AND MINERALS—contd.

No. 1—contd.

of workers and output of minerals, during the year 1924—contd.

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND.								ABOVE GROUND.					Grand total below and above ground.
Miners.				Others.				Total below ground.	Adult males.	Adult females.	Children.	Total above ground.	
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
FRAM ORE.													
				Labour figures included with those for Tin Ore.									
				Do.	do.		do.	do.					
				Do.	do.		do.	do.					
...
...
...
...
7	7	94	...	...	94	101	142	6	4	152	253
7	7	94	...	...	94	101	142	6	4	152	253
6	6	108	...	...	108	109	198	14	14	166	275
+1	+1	-9	...	...	-9	-8	+4	-8	-10	-14	-22

APPEN
STATISTICS OF MINES

Table

Number of mines regulated by the Indian Mines Act, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.	
CHROMITE									
Tons.									
Baluchistan	Quetta Plain	1	...	1	...	1	...	...	81
	Zhob	33	...	33	...	...	6	6	26,629
	TOTAL	34	...	34	...	1	6	6	26,710
Bihar and Orissa	Singhbhum	5	...	5	3	...	3	3	1,140
	GRAND TOTAL (CHROMITE ORS) FOR 1924	39	...	39	3	1	9	9	27,850
	TOTAL OF PRECEDING YEAR	37	...	37	12	1	...	...	25,233
	DIFFERENCE	+2	.. -	+2	-9	...	+9	+9	+2,617
COPPER									
Tons.									
Burma	Southern Shan States.	1	...	1	1	...	...	...	33
Bihar and Orissa	Singhbhum	2	2	...	...	1	2	3	...
Central Provinces.	Balaghat	1	...	1	...	1	...	...	...
	GRAND TOTAL (COPPER ORS) FOR 1924	4	2	2	1	2	2	3	33
	GRAND TOTAL OF PRECEDING YEAR	5	3	2	...	1	2	3	6,550
	DIFFERENCE	-1	-1	...	+1	+1	...	...	-6,512

DIX I—*contd.*AND MINERALS—*contd.*No. 1—*contd.*of workers and output of minerals, during the year 1924—*contd.*

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND.								Total below ground.	ABOVE GROUND.				Grand total below and above ground.
Miners.				Others.					Adult males.	Adult females.	Children.	Total above ground.	
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
ORE.													
15	...	...	15	...	...	...	...	15	10	...	...	10	25
239	...	...	239	...	...	...	...	239	207	...	...	207	446
254	...	...	254	...	...	...	...	254	217	...	...	217	471
81	69	27	177	...	...	...	...	177	49	19	1	69	246
335	69	27	431	...	...	...	...	431	236	19	1	256	717
316	46	23	385	...	...	...	...	385	301	11	4	316	701
+19	+23	+4	+46	...	...	...	...	+46	-35	+8	-3	-30	+16
ORE.													
26	...	...	26	...	...	...	...	26	5	...	...	5	31
237	3	...	240	...	...	...	...	240	202	151	12	455	695
16	11	...	27	2	...	...	2	29	2	...	...	2	31
279	14	...	293	2	...	...	2	295	299	151	12	462	757
1,261	13	...	1,274	1	...	...	1	1,275	955	437	31	1,423	2,718
-982	+1	...	-981	+1	...	...	+1	-980	-656	-306	-19	-981	-1,961

APPEN
STATISTICS OF MINES

Table

Number of mines regulated by the Indian Mines Act, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspectors.	
Burma	Katha	3	3	...	1	...	...	...	GEMS. (a) Rubies. Carats. 53,511 (b) Sapphire. 37,942 (c) Spinel. 9,644
	TOTAL	3	3	...	1	
Rajputana	Ajmer-Merwara	...	...	...	...	...	...	...	(d) Beryl.
	GRAND TOTAL (GEMS) FOR 1924	3	3	...	1	...	...	...	101,097
	GRAND TOTAL OF PRECEDING YEAR.	2	2	...	...	..	5	5	167,010
	DIFFERENCE	+1	+1	...	+1	...	-5	-5	-65,913

DIX I—*contd.*AND MINERALS—*contd.*No. 1—*contd.*of workers and output of minerals, during the year 1924—*contd.*

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND.								Total below ground.	ABOVE GROUND.				Grand total below and above ground.
<i>Miners.</i>				<i>Others.</i>					Adult males.	Adult females.	Children.	Total above ground.	
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
779	779	174	...	...	174	953	464	...	...	464	1,417
779	779	174	...	...	174	953	464	...	...	464	1,417
...
779	779	174	...	...	174	953	464	...	...	464	1,417
638	638	153	...	...	153	791	494	...	...	494	1,285
+141	+141	+21	...	...	+21	+162	-30	...	...	-30	+132

APPENDIX
STATISTICS OF MINES OF MINES

Table

Number of mines regulated by the Indian Mines Act, 1924, and the Indian Mines Act, 1926, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspection.	
Bihar and Orissa.	Bhagalpur . . .	1	...	1	1	1	...	...	MICA. Cwts. 15
	Gya . . .	27	4	28	14	5	...	...	5,274
	Hasaribagh . . .	362	40	322	140	89	1	1	23,205
	Monghyr . . .	11	...	11	6	7	...	...	242
	Sambalpur . . .	3	...	3	2	1	...	...	...
	Manbhum . . .	1	...	1	1	...	...	...	...
	TOTAL	405	44	361	164	108	1	1	28,736
Delhi . . .	Delhi . . .	...	...	...	...	...	...	...	20
Madras . . .	Nellore . . .	81	20	61	38	17	23	23	10,908
	Nilgiris . . .	6	...	6	4	...	...	...	365
	TOTAL	87	20	67	37	17	23	23	11,273
Rajputana . . .	Ajmer-Merwara . . .	21	...	21	7	8	...	...	500
	GRAND TOTAL (MICA) FOR 1924.	513	64	449	308	128	24	24	40,529
	GRAND TOTAL OF PRECEDING YEAR.	355	45	310	108	71	110	140	31,605
	DIFFERENCE	+158	+19	+139	+100	+57	-86	-116	+8,924

DIX I—contd.

AND MINERALS—contd.

No. 1—contd.

of workers and output of minerals, during the year 1924—contd.

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.														
BELOW GROUND.								Total below ground.	ABOVE GROUND.			Total above ground.	Grand total below and above ground.	
Miners.				Others.					Adult males.	Adult females.	Children.			
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.							
27	88	5	65	6	...	...	6	71	15	8	2	20	91
691	338	119	1,148	48	...	...	48	1,191	156	96	70	322	1,513
3,552	1,050	384	4,986	537	451	169	1,157	6,143	1,751	701	679	3,131	9,274	
127	66	28	215	66	58	...	119	334	34	23	13	70	404	
39	...	...	39	16	82	23	121	160	8	...	...	8	168
4	2	...	6	...	...	...	...	6	...	...	...	...	6
4,440	1,489	530	6,459	668	566	192	1,446	7,905	1,964	823	764	3,551	11,456	
			Labour	figures	included in those for			Clay.						
948	394	70	1,412	315	377	28	720	2,132	466	534	226	1,226	3,358	
97	23	...	120	9	...	...	9	129	53	29	20	102	231
1,045	417	70	1,532	324	377	28	729	2,261	519	563	246	1,328	3,589	
185	34	4	178	21	17	...	38	211	46	10	1	57	268	
5,620	1,940	604	8,164	1,013	960	220	2,213	10,377	2,529	1,366	1,011	4,906	15,313	
3,570	1,074	306	4,950	706	945	542	2,193	7,148	1,612	992	833	3,437	10,579	
+2,050	+866	+236	+3,214	+307	+35	-323	+20	+3,234	+917	+404	+179	+1,500	+4,734	

APPEN
STATISTICS OF MINES

Table
Number of mines regulated by the Indian Mines Act, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.	
Bihar and Orissa.	Singhbhum Shahabad Hazaribagh	1	...	1	1	LIMESTONE. Tons.	600
		10	...	10	1	3	...		235,027
		4	...	4	2		677
	TOTAL	15	...	15	4	3	...	236,304	
Central Provinces.	Bilaspur Jubbulpore, Katni	1	...	1	...	...	...	5,651
		23	1	23	3	10	...	259,039	
	TOTAL	24	1	23	3	10	...	264,690	
Burma	Northern Shan States.	2	...	2	...	...	...	12,839
	GRAND TOTAL (LIMESTONE) FOR 1924.	41	1	40	7	13	...	613,333	
	GRAND TOTAL OF PRECEDING YEAR.	25	2	23	3	6	23	25	236,161
	DIFFERENCE	+16	-1	+17	+4	+7	-23	-25	+277,172

DIX *—contd.*AND MINERALS—*contd.*No. 1—*contd.*of workers and output of minerals, during the year 1924—*contd.*

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND:								Total below ground.	ABOVE GROUND:				Grand total below and above ground.
Miners.				Others.					Adult males.	Adult females.	Children.	Total above ground.	
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
40	...	...	40	...	...	...	...	40	22	8	...	30	70
884	478	158	1,510	158	46	18	222	1,732	358	161	96	610	2,342
58	19	17	89	...	...	...	...	89	6	...	...	6	95
977	492	170	1,639	158	46	18	222	1,861	381	169	96	646	2,507
30	...	...	30	4	25	5	34	64	55	45	6	106	170
1,405	1,796	31	3,232	396	961	...	1,359	4,591	292	337	35	664	5,255
1,435	1,796	31	3,262	402	966	5	1,373	4,655	347	362	41	770	5,425
...	...	...	...	296	...	...	296	296	31	...	...	31	329
2,412	2,288	201	4,901	858	1,082	23	1,913	6,814	759	351	137	1,447	8,231
1,780	966	25	2,771	628	2,362	5	2,995	5,716	639	475	78	1,192	6,908
+682	+1,023	+176	+2,180	+230	-1,330	+18	-1,082	+1,006	+120	+76	+59	+255	+1,353

STATISTICS OF MINES

Table

Number of mines regulated by the Indian Mines Act, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.	
Bihar and Orissa.	Sahabad . . .	1	...	1	...	...	...	...	STONE Tons. 21,000 5,587 26,587
	Sonthal Parganas .	1	...	1	1	1	...	...
	TOTAL . . .	2	...	2	1	1	...	...
Birma . . .	Thaton . . .	1	...	1	1	...	...	...	834,690
	Bassein . . .	2	...	2	2	...	...	...	5,400
	TOTAL . . .	3	...	3	3	...	...	...	840,090
	GRAND TOTAL (STONE) FOR 1924.	5	...	5	4	1	...	...	866,877
	GRAND TOTAL OF PRECEDING YEAR.	...	...	...	...	...	...	...	...
	DIFFERENCE . . .	+5	...	+5	+4	+1	...	...	+866,877
Punjab.	Jhalum . . .	1	1	...	...	...	1	1	114,898
	Mianwali . . .	1	...	1	...	...	1	1	8,971
	Shahpur . . .	1	...	1	...	...	...	...	86,049
	GRAND TOTAL (SALT) FOR 1924.	3	1	2	...	...	2	2	159,918
	GRAND TOTAL OF PRECEDING YEAR.	3	1	2	...	...	1	1	113,700
	DIFFERENCE . . .	...	...	...	...	...	+1	+1	+46,218

DIX I—contd.

AND MINERALS—contd.

No. 1—contd.

of workers and output of minerals, during the year 1924—contd.

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND.								Total below ground.	ABOVE GROUND.				Grand total below and above ground.
Miners.				Others.					Adult males.	Adult females.	Children.	Total above ground.	
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
80	...	...	80	...	...	...	...	80	120	...	...	120	200
9	...	...	9	...	...	...	...	9	59	...	...	59	68
89	...	...	89	...	...	...	...	89	179	...	...	179	268
603	12	9	624	...	...	...	...	624	370	10	20	400	1,024
24	...	...	24	...	...	...	...	24	36	...	...	36	60
627	12	9	648	...	...	...	...	648	406	10	20	436	1,084
716	12	9	737	...	...	...	...	737	585	10	20	615	1,352
...
+716	+12	+9	+737	...	...	...	...	+737	+585	+10	+20	+615	+1,352
322	196	49	569	126	...	...	126	695	...	...	...	...	695
85	...	1	86	...	...	...	...	86	...	...	...	...	86
56	44	5	105	...	...	...	...	105	24	...	...	24	129
418	242	55	710	126	...	...	126	836	24	...	...	24	860
265	158	27	445	155	...	...	155	600	...	...	...	...	600
+148	+59	+26	+233	-29	...	...	-29	+236	+24	...	...	+24	+260

DIX I—*contd.*AND MINERALS—*contd.*No. 1—*contd.*of workers and output of minerals, during the year 1924—*contd.*

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND.								Total below ground.	ABOVE GROUND.				Grand total below and above ground.
<i>Miners.</i>				<i>Others.</i>					Adult males.	Adult females.	Children.	Total above ground.	
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
105	78	50	233	...	...	...	...	233	89	...	...	89	322
...
98	...	31	124	6	...	11	17	141	41	...	28	69	210
358	2	48	408	...	...	...	...	408	40	19	5	64	467
446	2	79	527	6	...	11	17	544	81	19	33	133	577
551	80	129	760	6	...	11	17	777	170	19	33	222	999
401	125	85	611	...	...	16	16	627	196	18	28	232	859
+150	-45	+44	+149	+6	...	-5	+1	+150	-26	+6	+10	-10	+140
NEBITE.													
570	800	885	1,755	...	...	...	...	1,755	156	54	80	240	1,995
415	296	672	1,385	...	...	...	...	1,385	102	15	60	177	1,562
+155	+502	-287	+370	...	...	...	...	+370	+54	+39	-30	+63	+433

APPEN
STATISTICS OF MINES

Table

Number of mines regulated by the Indian Mines Act, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.	
									BAUXITE.
									Cwts.
Bombay	Kaira	1	...	1	...	...	...	...	394,760
Central Provinces.	Jubbulpore . . .	1	...	1	...	...	...	...	49,000
	GRAND TOTAL (BAUXITE) 1924	2	...	2	...	...	...	...	448,760
	TOTAL OF PRECEDING YEAR . . .	1	...	1	1	...	1	1	115,955
	DIFFERENCE . . .	+1	...	+1	-1	...	-1	-1	+328,405
									CLAY.
									Tons.
Bengal	Burdwan . . . .	...	...	...	...	...	...	...	2,096
Bihar and Orissa.	Bhagalpur	1	...	1	1	...	...	...	1,155
	Manbhum	5	...	5	4	...	...	...	17,724
	Falaman	1	...	1	...	...	...	...	3,810
	Singhbhum	4	...	4	...	2	...	...	1,137
	TOTAL	11	...	11	5	2	...	...	28,826

DIX I—*contd.*AND MINERALS—*contd.*No. 1—*contd.*of workers and output of minerals, during the year 1924—*contd.*

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND.								Total below ground.	ABOVE GROUND.				Grand total below and above ground.
Miners.				Others.					Adult males.	Adult females.	Children.	Total above ground.	
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
151	119	...	270	15	...	...	15	285	28	9	27	59	344
...	...	...	...	15	30	...	45	45	5	...	...	5	50
151	119	...	270	30	30	...	60	330	28	9	27	64	394
98	68	...	166	3	...	...	3	159	17	...	19	36	195
+58	+58	...	+114	+27	+30	...	+57	+171	+11	+9	+8	+28	+199
Labour figures included with those for Coal.													
11	21	...	32	...	...	...	...	32	21	7	5	33	65
268	4	...	272	12	...	...	12	284	80	3	...	83	367
14	10	2	26	2	...	...	2	28	20	10	8	38	66
66	142	3	211	...	...	...	...	211	4	10	...	14	225
359	177	5	541	14	...	...	14	555	125	30	13	168	723

APPEN
STATISTICS OF MINES

Table

Number of mines regulated by the Indian Mines Act, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.	
									CLAY Tons.
Central Provinces.	Jubbulpore . . .	4	2	2	...	1	1	1	28,869
	Narsingpur . . .	1	...	1	1	...	...	...	38
	TOTAL	5	2	3	1	1	1	1	28,907
Delhi . . .	Delhi	4	...	4	3	3	...	..	2,578
	GRAND TOTAL (CLAY) FOR 1924.	20	2	18	9	6	1	1	57,402
	TOTAL OF PRECEDING YEAR.	9	2	7	5	4	2	2	40,735
	DIFFERENCE	+11	...	+11	+4	+2	-1	-1	+16,667
									STEAL Cwts.
Central Provinces . . .	Jubbulpore . . .	2	...	2	...	...	...	..	38,495
Madras . . .	Kurnool	1	...	1	...	...	...	...	61
	Nellore	2	...	2	...	...	2	2	2,160
	TOTAL	3	...	3	...	...	2	2	2,241
	GRAND TOTAL (STEALITE) FOR 1924	5	...	5	...	...	2	2	35,736
	GRAND TOTAL OF PRECEDING YEAR	5	...	5	...	...	3	3	21,521
	DIFFERENCE	...	...	...	...	...	-1	-1	+14,215

DIX I—*contd.*AND MINERALS—*contd.*No. 1—*contd.*of workers and output of minerals, during the year 1924—*contd.*

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND.								Total below ground.	ABOVE GROUND.				Grand total below and above ground.
Miners.				Others.					Adult males.	Adult females.	Children.	Total above ground.	
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
<i>—contd.</i>													
106	258	28	392	...	...	...	...	387	31	...	...	31	418
17	15	...	32	...	...	...	...	32	...	...	...	...	32
123	273	23	419	...	...	...	...	419	31	...	...	31	450
24	...	...	24	...	...	...	...	24	21	...	...	21	45
506	450	28	984	14	...	...	14	998	177	30	13	220	1,218
158	250	20	428	2	...	...	2	430	80	19	12	111	541
+348	+200	+8	+556	+12	...	...	+12	+568	+97	+11	+1	+109	+677
TIME.													
64	18	...	82	30	60	...	90	172	26	36	16	82	254
1	2	...	3	...	...	...	...	3	6	1	...	7	10
23	1	...	24	...	...	...	...	24	11	8	1	20	44
24	3	...	27	...	...	...	...	27	17	9	1	27	54
88	21	...	109	30	60	...	90	199	43	47	10	100	308
75	17	...	92	30	60	...	90	182	40	44	18	102	284
+19	+4	...	+17	...	...	...	...	+17	+3	+3	+1	+7	+24

APPEN
STATISTICS OF MINES

Table

Number of mines regulated by the Indian Mines Act, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.	
Bihar and Orissa	Singhbhum	1	...	1	...	1	...	...	BARY Cwts. ...
Madras	Kurnool	5	...	5	5	4	...	...	15,660
	GRAND TOTAL (BARYTES) 1924.	6	...	6	5	5	...	...	15,660
	TOTAL OF PRECEDING YEAR.	2	...	2	2	1	...	...	20,000
	DIFFERENCE	+4	...	+4	+3	+4	...	...	-4,340
Bihar and Orissa	Singhbhum	2	...	2	1	...	...	...	APA Tons. 6,426
	TOTAL OF PRECEDING YEAR.	1	...	1	...	...	...	...	1,082
	DIFFERENCE	+1	...	+1	+1	...	...	...	+5,344

DIX I—*contd.*AND MINERALS—*contd.*No. 1—*contd.*of workers and output of minerals during the year 1924—*contd.*

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND.								ABOVE GROUND.					Grand total below and above ground.
Miners.				Others.				Total below ground.	Adult males.	Adult females.	Children.	Total above ground.	
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
TES.													
41	...	...	41	...	...	...	...	41	6	24	...	30	71
40	...	...	40	...	...	...	...	40	8	16	3	27	67
81	...	...	81	...	...	...	...	81	14	40	3	57	138
78	83	10	121	...	...	...	...	121	18	26	1	45	166
+3	-83	-10	-40	...	...	...	...	-40	-4	+14	+2	+12	-23
TITE.													
63	37	...	100	...	...	...	...	100	122	85	...	207	307
42	...	...	42	3	21	...	24	66	34	9	...	43	109
+21	+37	...	+58	-3	-21	...	-24	+34	+88	+76	...	+164	+193

STATISTICS OF MINES

Table

Number of mines regulated by the Indian Mines Act, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.	
Central Provinces.	Bhandara . . .	1	..	1	..	1	..	..	ASBESTOS Cwts. 395
Madras . . .	Cuddapah . . .	1	..	1	1	..	..	..	270
	GRAND TOTAL (ASBESTOS) FOR 1924.	2	..	2	1	1	..	..	665
	GRAND TOTAL OF PRECEDING YEAR.	..	..	..	..	..	..	..	..
	DIFFERENCE .	+2	..	+2	+1	+1	..	..	+665
Bihar and Orissa.	Puri . . .	1	1	..	..	..	..	..	OOH Tons. 300
Central Provinces.	Jubbulpore . . .	1	..	1	..	1	..	..	..
	GRAND TOTAL (OOH) FOR 1924	2	1	1	..	1	..	..	300
	GRAND TOTAL OF PRECEDING YEAR.	3	1	2	..	2	..	..	2,378
	DIFFERENCE	-1	..	-1	..	-1	..	..	-2,378

DIX I *contd.*
AND MINERALS *contd.*

Nov 1 *contd.*

of workers and output of minerals, during the year 1924—*contd.*

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND.								ABOVE GROUND.					Grand total below and above ground.
Miners.				Others.				Total below ground.	Adult males.	Adult females.	Children.	Total above ground.	
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
TOS.													
4	3	—	11	...	...	...	...	11	1	...	...	1	12
40	25	9	74	...	...	...	...	74	...	...	...	...	74
44	32	9	85	...	...	...	...	85	1	...	...	1	86
...
+44	+32	+9	+85	...	...	...	...	+85	+1	...	...	+1	+86
R.E.													
6	...	...	6	12	...	...	12	16	24	...	...	24	42
...
6	...	...	6	12	...	...	12	18	24	...	...	24	42
52	17	11	80	...	...	...	...	80	119	45	10	174	254
-46	-17	-11	-74	+12	...	...	+12	-62	-95	-45	-10	-150	-212

APPENDIX
STATISTICS OF MINES

Table

Number of mines regulated by the Indian Mines Act, number

PROVINCE.	District and mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				NUMBER OF MINES INSPECTED DURING THE YEAR.		TOTAL OUTPUT.
			Worked by mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.	
Central Provinces . .	Jubbulpore . .	...	...	...	...	...	...	...	FULLER'S Tons. 19
	TOTAL OF PRECEDING YEAR .	...	...	...	...	...	...	...	80
	DIFFERENCE .	...	...	...	...	...	...	...	-61
Central Provinces.	Bhandara . .	1	...	1	1	...	...	...	CORUN Tons ...
	TOTAL OF PRECEDING YEAR.	...	...	...	...	...	...	...	...
	DIFFERENCE .	+1	...	+1	+1	...	...	...	...
Burma . .	Tavy . .	...	...	...	...	...	...	...	BIS- Lbs. 80
	TOTAL OF PRECEDING YEAR.	...	...	...	...	...	...	...	...
	DIFFERENCE .	...	...	...	...	...	...	...	+80
	GRAND TOTAL (ALL MINERALS) 1924.	1,804	576	1,228	486	287	768	1,539	...
	GRAND TOTAL OF PRECEDING YEAR.	1,543	559	984	242	276	904	1,680	...
	DIFFERENCE .	+261	+17	+244	+244	+11	-141	-141	...

DIXI—contd.

MINERALS—contd.

No. 1—concl'd.

of workers and output of minerals, during the year 1924—concl'd.

AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES.													
BELOW GROUND.									ABOVE GROUND.				Grand total below and above ground.
Miners.				Others.				Total below ground.	Adult males.	Adult females.	Children.	Total above ground.	
Adult males.	Adult females.	Children.	Total.	Adult males.	Adult females.	Children.	Total.						
EARTH.													
Labour figures included with those for limestone.													
...
...
DUM.													
...	...	...	...	...	...	...	...	...	12	3	...	15	15
...
...	...	...	...	...	...	...	...	...	+12	+3	...	+15	+15
MUTH.													
Labour figures included with those for Tin Ore.													
...
...
78,738	47,182	1,928	127,848	26,267	13,198	421	39,871	167,719	59,407	27,059	4,082	90,408	258,217
69,001	40,114	1,881	110,996	21,422	12,562	851	34,835	145,881	56,827	27,578	4,628	89,033	234,864
+9,737	+7,068	+47	+16,852	+4,835	+631	-430	+5,036	+21,838	+3,580	-519	-596	+1,465	+23,353

Analyses of figures relating to

PROVINCE.	District and mineral field.	COAL					
		Opening stock.	Rasings.	TOTAL.	Despatches.	Colliery output.	Coal delivered to coking.
		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Assam.	Lakhimpur	555	274,479	275,034	263,452	14,584	2,048
	Naga Hills	193	60,063	60,276	59,818	458	...
	Sibsagar . . . . .	...	...	...	...	...	...
	TOTAL	748	334,562	335,310	313,270	14,992	2,048
Baluchistan	Kalat . . . . .	...	...	...	...	...	...
	Loralai	14	158	172	143	15	...
	Quetta-Pishin	1,603	4,111	5,714	4,487	154	...
	Sibi-Khoet	2,103	25,678	27,781	21,642	5,065	...
	TOTAL	3,720	29,947	33,667	26,273	5,234	...
Bengal	Bankura-Baniganj	837	8,650	9,487	7,314	1,758	...
	Birbhum „	3,414	18,566	21,980	18,581	2,483	...
	Burdwan „	422,818	5,004,439	5,427,257	4,122,387	726,747	13,437
	TOTAL	426,069	5,021,655	5,437,744	4,148,282	730,988	13,437

DIX 1st contd.

Table

output of Coal and Coke.

		COKE.							
Coal despatched to coke factories.	Closing stock.	OPENING STOCK.		COKE MADE.		DESPATCHES.		CLOSING STOCK.	
		Hard.	Soft.	Hard.	Soft.	Hard.	Soft.	Hard.	Soft.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
...	...	...	...	688	...	688	...	...	...
...
...
...	...	...	...	688	...	688	...	...	...
...
...	14	...	...	...	...	...	...	...	...
...	1,073	...	...	...	...	...	...	...	...
...	1,074	...	...	...	...	...	...	...	...
...	2,161	...	...	...	...	...	...	...	...
...	415	...	...	...	...	...	...	...	...
...	1,016	...	...	...	...	...	...	...	...
...	564,686	844	724	540	7,521	502	6,721	292	1,524
...	566,117	844	724	540	7,521	502	6,721	292	1,524

Analyses of figures relating to

PROVINCE.	District and mineral field.	COAL					
		Opening stock.	Raisings.	TOTAL.	Despatches.	Colliery consumption.	Coal delivered to coking.
		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Bihar and Orissa.	Bokaro	23,657	1,342,500	1,367,367	1,257,361	74,888	7,941
	Hazari-bagh { Giridih	19,164	768,690	787,854	654,637	58,696	48,351
	Jharis	75,305	153,200	228,505	186,271	15,046	1,371
	Rangach	834	5,905	6,739	4,935	1,012	...
	Manbhum { Jharis	2,134,350	10,692,442	12,826,792	9,457,265	1,161,982	307,638
	Baniganj	213,941	868,203	1,082,144	529,344	125,369	178,985
	Palamau-Daltonganj	19,421	4,691	18,112	18,309	3,862	...
	Sambalpur-Hingir Rampur.	457	49,445	49,902	34,957	18,151	...
	Sonthal Parganas. { Jainty.	4,000	78,547	82,547	69,951	10,096	...
	{ Raniganj.	15,642	135,489	151,131	115,020	18,104	5
	TOTAL	2,501,001	14,100,112	16,601,113	12,273,050	1,462,026	544,891
Burma	Mergui	...	255	255	255	...	...
Central Provinces.	Betul	1,847	1,111	2,958	634	...	...
	Chanda	6,383	127,545	133,928	95,112	26,025	...
	Chhindwara	30,363	473,896	504,259	439,810	42,338	150
	Narsinghpur	2,996	76,526	86,522	74,901	8,808	...
	Yeotmal	136	...	136	...	136	...
	Hoshangabad	...	3	3	...	...	...
	TOTAL	48,725	679,081	727,806	610,458	77,357	150
Punjab	Jhelum	2,810	52,942	55,752	49,321	3,617	2
	Mianwali	1,171	18,787	19,958	18,790	17	...
	Shahpur	...	3,693	3,693	3,571	122	...
	TOTAL	3,981	80,422	84,403	76,682	3,056	2
	GRAND TOTAL 1924.	2,991,244	20,256,084	23,247,278	17,459,219	2,314,503	560,538

DIX I—contd.

No. 2—contd.

output of Coal and Coke—concl'd.

		COKE.							
Coal despatched to coke factories.	Closing stock.	OPENING STOCK.		COKE MADE.		DESPATCHES.		CLOSING STOCK.	
		Hard.	Soft.	Hard.	Soft.	Hard.	Soft.	Hard.	Soft.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
...	27,197	...	271	285	4,853	92	5,043	193	110
...	25,570	119	...	37,123	...	37,243	...	...	...
...	75,817	27	440	124	543	...	225	151	763
...	793	...	...	...	...	...	...	...	...
767,689	1,890,907	10,849	18,159	23,507	176,249	26,087	179,595	7,269	14,813
...	248,426	15	7,668	63	115,443	14	112,750	63	10,560
...	1,441	...	...	...	...	...	...	...	...
...	1,494	...	...	...	...	...	...	...	...
...	2,500	...	...	...	...	...	...	...	...
...	18,003	...	33	...	3	...	36	...	...
767,689	2,301,143	11,010	26,771	60,101	297,124	63,435	297,649	7,676	26,246
...
...	2,324	...	...	...	...	...	...	...	...
...	12,790	...	...	...	...	...	...	...	...
...	21,906	...	...	...	100	...	41	...	59
...	2,618	...	...	...	...	...	...	...	...
...
...	3	...	...	...	...	...	...	...	...
...	39,841	...	...	...	100	...	41	...	59
...	2,612	...	...	...	...	...	...	...	...
...	1,151	...	...	...	...	...	...	...	...
...
...	3,763	...	...	...	...	...	...	...	...
767,689	2,913,025	11,354	27,495	61,324	304,745	64,710	304,411	7,968	27,539

APPENDIX I—contd.

Table No. 3.

The following table shows the fluctuations in the output of the principal minerals raised from mines classed under the Indian Mines Act. The other minerals raised are gems, slate, magnesite, steatite, clay, bauxite, fuller's earth, ochre, barytes, apatite asbestos, bismuth, corundum and stone.

YEAR.	Coal.	Iron ore.	Manganese ore.	Lead ore.	Silver.	Tin ore.	Wolfram ore.	Gold.	Chromite ore.	Copper ore.	Mica.	Limestone.	Salt.
	Tons.	Tons.	Tons.	Tons.	Troy ozs.	Tons.	Tons.	Troy ozs.	Tons.	Tons.	Cwts.	Tons.	Tons.
1915	16,352,480	128,017	378,173	7	613	14	1,972	24,320	1,465	2,010	24,063	64,179	144,770
1916	16,419,083	143,006	568,032	7	1,362	88	2,955	23,235	5,004	2,071	35,978	45,290	160,357
1917	17,326,384	178,303	497,053	...	1,281	182	3,066	22,991	17,260	20,108	34,896	82,340	152,542
1918	19,847,039	115,600	415,367	3	1,169	692	3,669	19,916	24,030	3,619	51,572	131,451	158,513
1919	21,759,727	101,322	439,184	2½	783	761	2,905	11,191	14,067	32,758	41,983	146,810	174,974
1920	17,082,711	146,472	622,636	122,008	2,670,896	1,026	1,733½	12,645	23,123	26,167	44,000½	161,340	181,022
1921	18,358,934	286,100	284,264	144,089½	3,555,640	1,032	864½	10,108	27,727	32,580	29,470	284,253	123,084
1922	18,168,988	240,283	392,322	172,018	4,206,138	1,080	942	8,388	10,695	30,764	30,069	140,507	187,157
1923	18,763,967	292,033	546,278	245,925½	4,844,042	1,081	872	1,519	25,233	6,550	31,803	236,161	113,700
1924	20,256,034	430,806	698,231	319,288	5,287,960	1,627	739	3,626	27,850	39	40,539	513,233	156,918

Table No. 4.

The following table shows the amount of coal raised, the average number of persons working daily and the death-rates during the years 1915 to 1924 in respect of coal mines under the Indian Mines Act. :—

YEAR.	Amount of coal raised.	Average number of persons working daily below and above ground.	Number of deaths below and above ground.	DEATH-RATES.	
				Per 1,000,000 tons raised.	Per 1,000 persons working daily below and above ground.
1915	Tons. 16,352,480	145,537	166	10.15	1.14
1916	16,419,082	143,450	169	12.29	1.18
1917	17,326,384	153,683	163	9.41	1.06
1918	19,847,039	176,269	197	9.93	1.12
1919	21,759,727	190,052	260	11.95	1.37
1920	17,082,711	175,943	172	10.07	0.98
1921	18,358,934	190,847	257	13.99	1.35
1922	18,168,988	184,355	209	11.50	1.13
1923	18,763,967	182,801	332	17.69	1.82
1924	20,256,034	187,088	230	11.35	1.23

APPENDIX I—contd.

Table No. 5.

Aggregate horse power and purpose for use of electric motors installed both on the surface and underground at coal mines under the Indian Mines Act:—

Coal-field.	HORSE POWER ON SURFACE.						HORSE POWER BELOW GROUND.					Total horse power of motors installed.
	Winding.	Ventilation.	Haillage.	Coal washing or screening.	Miscellaneous.	TOTAL.	Haillage.	Pumping.	Portable machinery.	Miscellaneous.	TOTAL.	
Assam . . . . .	...	...	...	...	98	98	...	...	...	...	...	98
Bokaro . . . . .	...	...	...	...	10	10	...	...	...	...	...	10
Burma . . . . .	...	...	...	...	—	...	...	...	...	...	...	...
Central Provinces . . . . .	...	135	10	50	165	360	107	628	30	...	765	1,125
Giridih . . . . .	...	...	...	110	58	168	105	1,232	...	...	1,337	1,505
Jharia	2,345	452	2,147	247	3,286	8,477	3,632	12,018	2,003	114	16,717	27,194
Raniganj	2,462	980	695	140	174	4,451	2,435	5,148	1,476	60	9,119	13,570
TOTAL	4,807	1,587	2,852	547	3,791	13,564	6,829	19,026	3,509	174	29,938	43,502

Table No. 6.

Number of mines under the Indian Mines Act, where electrical power is used, and the aggregate horse power of electric motors installed:—

Province.	MINERALS WORKED.							Total horse power of motors installed.
	COAL.		SILVER—LEAD.		SUNDRY MINERALS.			
	Number of mines.	Horse power.	Number of mines.	Horse power.	Number of mines.	Horse power.		
Assam	1	98	...	...	...	...	98
Bengal	39	10,655	...	...	...	...	10,655
Bihar and Orissa	56	31,624	...	...	...	...	31,624
Burmah . . . . .	...	...	1	1,850	5	503	2,353
Central Provinces	3	1,125	...	...	3	240	1,365
TOTAL	99	43,502	1	1,850	8	743	46,095	

APPENDIX I—*concl'd.*

Table No. 7.

Number and type of coal cutting machines at work in coal mines under the Indian Mines Act:—

Maker.	British.	American.	Chain.	Bar.	Perons- sive.	Power.			Total number of machines.
						Electricity		Com- pressed air.	
						A. C.	D. C.		
Anderson Boyes . . .	1	...	1	...	...	1	...	...	1
Goodman . . . . .	...	36	36	...	...	8	28	...	36
Hardiux	10	...	...	...	10	...	...	10	10
Ingersoll Rand . . .	...	1	...	1	...	...	...	1	1
Mavor and Coulson . .	41	...	...	41	...	35	...	6	41
Siskol	8	...	...	...	8	...	...	8	8
Sullivan . . . . .	...	17	17	...	...	17	...	...	17
TOTAL	60	54	54	42	18	61	28	25	114

Assam coal-field 3 machines.
 Jharia coal-field 55 "
 Raniganj " 48 "
 Bokaro " 1 machine.
 Central Provinces 4 machines.
 Punjab 3 "

Total number of square feet
 underneath 5,631,267.

Table No. 8.

Number of mechanical ventilators in use at coal mines under the Indian Mines Act:—

Assam.	Bengal.	Bihar and Orissa.	Central Provinces.	Punjab.	TOTAL.
11	11	24	9	1	56

Table No. 9.

Number of safety lamps in use at coal mines under the Indian Mines Act:—

Assam.	Baluchistan.	Bengal.	Bihar and Orissa.	Central Provinces.	Punjab.	TOTAL.
1,868	1,186	6,283	4,296	1,096	4	14,733

1,146 were locked by screws, 8,581 by lead rivets and 5,007 by magnetic means.

APPENDIX II.
ACCIDENTS IN MINES.

Table No. 1.

List of Fatal Accidents in mines regulated by the Indian Mines Act, 1901, during the year 1924.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
EXPLOSIONS AND IGNITIONS OF FIRE-DAMP <i>—(8 deaths.)</i>						
1	1st October, 12 A.M.	Bhatdee mine, Mohuda P. O., Bihar and Orissa.	Bengal Bhatdee Coal Co., Ltd.	Achambet Rajwar, (m.), 38, Karam Gope, (m.), 30, Coal-cutters.	Coal	The two deceased entered a fenced gallery and were fatally burnt by an ignition of fire-damp caused by a defective safety lamp. Inspection and inquiry made.
FALLS OF ROOF AND SIDES. <i>(a) Falls of roof—(37 deaths.)</i>						
2	1st January, 1-30 P.M.	Nodiha mine, Disergarh P. O., Bihar and Orissa.	Nodiha Coal Co., Ltd.	Gupi Mallik, (m.), 45, Timber Sirdar.	Coal	Whilst deceased was withdrawing props in a goafed area, a mass of roof stone, 11' x 18' x 1', fell from a height of 7 feet and killed him. Had he used the safety appliances provided this accident would not have occurred. Inspection and inquiry made.
3	6th January, 6 A.M.	Kajora mine, Ondal P. O., Bengal.	Gundar Kajora Coal Co.	Munahi Bhuiya, (m.), 28, Labourer.	Coal	Whilst a number of persons were loading coal which had been blown down by explosives six hours previously a mass of roof coal, 5' x 4' x 3'-6", fell from a height of 13 feet. One person was killed and another received severe injuries. Inspection and inquiry made.
4	8th January, 4 P.M.	Ekra Khas mine, Bangjora P. O., Bihar and Orissa.	Maharajah of Cossimbazar.	Bhikoo Chamar, (m.), 35, Coal-cutter.	Coal	Deceased passed through a fence and was cutting coal from a pillar when a piece of coal, weighing about 7 cwt., fell on him from a height of 7 feet, killing him instantly. Inspection and inquiry made.

APPENDIX II—contd.

List of Fatal Accidents, 1924—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—contd.						
(a) Falls of roofs—(87 deaths)—contd.						
5	18th January, 1 P.M.	Pandaveswar mine, Pandaveswar P. O., Bengal.	Highfield Colliery, Ld.	Mukhia Kayat, (m.), 40, Coal-cutter.	Coal	Deceased was cutting floor coal when a mass of coal, weighing about 1 cwt., fell upon him from between two converging 'slips' at a height of 18 feet. He sustained serious injuries and died an hour later. Inspection and inquiry made.
6	19th January, 5-30 A.M.	Joba mine, Joba P. O., Bengal.	Burrakar Coal Co., Ld.	Chaitoo Mohora, (m.), 25, Labourer.	Coal	Whilst deceased was loading coal he was injured by a mass of roof stone which fell from a height of 12 feet. He died three hours later. Inspection and inquiry made.
7	26th January, 4 P.M.	Central Dharmaband mine, Katrasgarh P. O., Bihar and Orissa.	Central Dharmaband Coal Co., Ld.	Rajan Soni, (m.), 44, Sirdar.	Coal	Deceased, whilst drawing props in a goafed area, was killed by a fall of stone weighing about 5 cwt. Inspection and inquiry made.
8	2nd February, 10-15 A.M.	Lodna mine, Jharra P. O., Bihar and Orissa.	Lodna Colliery Co., (1920) Ld.	Janki Mahato, (m.), 25, Labourer.	Coal	Deceased, while assisting to set a prop, was struck on the head by a piece of stone, 14" x 14" x 4", which fell from the roof—a height of 22 feet. He sustained injuries from which he died eighteen hours later. Inspection and inquiry made.
9	2nd February, 11-30 A.M.	Luchipur mine, Sitarampur P. O., Bengal.	Burrakar Coal Co., Ld.	Moral Manjhi, (m.), 25, Coal-cutter.	Coal	Deceased passed through a fence and was cutting roof coal at the edge of a goaf when a piece of coal, 2' x 1'-6" x 1'-6", fell on him. He sustained injuries to which he succumbed ten days later. Inspection and inquiry made.
10	2nd February, 2 P.M.	Murnuldih mine, Mohuda P. O., Bihar and Orissa.	Bengal Coal Co., Ld.	Basu Manjhi, (m.), 26, Coal-cutter.	Coal	Deceased passed through a fence and was cutting coal from the corner of a pillar when a piece of coal, weighing about 4 tons, fell from the roof, killing him instantly. Inspection and inquiry made.
11	3rd February, 2 A.M.	Ramjibanpur mine, Sitarampur P. O., Bengal.	Ramjibanpur Coal Co.	Dukhu Manjhi, (m.), 28, Coal-cutter.	Coal	Whilst dressing a pillar, deceased was killed by a mass of coal, 6½' x 8' x 40' which fell from an exposed 'slip.' Inspection and inquiry made.

12	8th February, 2-30 A.M.	Sadowa mine, Ganwan P. O. Bihar and Orissa.	F. F. Chrestien and Co., Ld.	Budhan Manjhi, (m.), 30, Driller.	Misc	Deceased was working at the face of an adit when he was struck by a rock, weighing about 5 cwt., which fell from the roof—a height of 8 feet. He was killed instantly. Inspection and inquiry made.
13	8th February, 8-30 A.M.	Chatabar mine, Mugma P. O. Bihar and Orissa.	Chatabar Colliery, Ld.	Nakul Mallik, (m.), 22, Coal-cutter.	Coal	Whilst deceased was in his working place in a gallery he was killed by a mass of stone, weighing about 30 cwt., which fell from the roof at a fault. Inspection and inquiry made.
14	12th February, 1-45 P.M.	Ashakuty mine, Katraagarh P. O. Bihar and Orissa.	Royal Coal Co., Ld.	Bodhi Teli, (m.), 22 ; Sudaram Teli, (m.), 35, Coal-cutters.	Coal	After a shot had been fired the deceased returned to their working place before it had been examined by a competent person. A piece of stone, 6' x 4' x 4", fell from the roof—a height of 14 feet. One of the deceased was killed instantly and the other sustained injuries from which he died three days later. Inspection and inquiry made.
15	13th February, 1 A.M.	Dandot mine, Dandot P. O. Punjab.	Rai Sahib Thakurdass Ramjiddass.	Mohita, (m.), 65, Coal-cutter.	Coal	A miner working in a coal seam, 2'-9" thick, was slightly injured by a piece of stone which fell from slips in the roof. Whilst he was being extricated a second fall occurred and deceased was struck and fatally injured by a piece of stone, 3' x 1' x 1'-6". Inspection and inquiry made.
16	15th February, 1 P.M.	Kurhurbaree mine, Giridih P. O., Bihar and Orissa.	East Indian Railway.	Mohan Roy, (m.), 35, Coal-cutter.	Coal	The roof of a goaf suddenly came "on weight", and a thin slab of stone, 9 to 15 inches thick and some 800 square yards in area, fell. Deceased, who was cutting coal near the edge of the goaf, was struck by part of the falling stone, and died the following morning from concussion of the brain. Inspection and inquiry made.
17	16th February, 1 A.M.	Khas Jherria mine, Jharua P. O., Bihar and Orissa.	Khas Jherria Col- liery Co., Ld.	Amrit Kumar, (m.), 26, Coal-cutter.	Coal	Deceased was struck by a piece of stone, weighing 2½ tons, which fell from a height of 7 feet. He died in hospital three months later. Inspection and inquiry made.
18	27th February, 3-30 A.M.	Borjan mine, Kongon P. O., Assam.	Nazira Coal Co., Ld.	Amir Khan, (m.), 25, Coal-cutter ; Lalbahar Gond, (m.), 30, Coal-puller.	Coal	Whilst a gang of miners was engaged in extracting a pillar of coal a fall of roof took place, and the two deceased were killed. Inspection and inquiry made.
19	1st March, 8 A.M.	Borrea mine, Sitarampur P. O., Bengal.	New Beerbhoom Coal Co., Ld.	Nepa Manjhi, (m.), 35, Coal-cutter.	Coal	Whilst deceased was robbing coal from the corner of a pillar he was killed by a mass of roof coal, 4' x 4' x 15", which fell from a height of 17 feet. Inspection and inquiry made.
20	15th March, 1 P.M.	Bhulanbararee mine, Pathardihi P. O., Bihar and Orissa.	Bhulanbararee Coal Co., Ld.	Etwari Meah, (m.) 34, Lukhan Barhi, (m.), 30, Labourers.	Coal	While assisting to erect a prop, the deceased were struck by a piece of coal, 3' x 2' x 18", which fell from the roof—a height of 18 feet. One of the deceased was killed instantly and the other died within half an hour. Another person sustained injuries to the head. Inspection and inquiry made.

APPENDIX II—contd.

List of Fatal Accidents, 1924—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—contd.						
(a) Falls of roof—(87 deaths)—contd.						
21	19th March, 11 A.M.	Pandobera mine, Jharia P. O., Bihar and Orissa.	Pandobera Colliery Co.	Dhiru Kor, (m.), 25, Coal-cutter.	Coal	Deceased was cutting roof coal in a gallery, 10 feet high, when a mass of coal, weighing about 1½ tons, fell unexpectedly and killed him instantly. Inspection and inquiry made.
22	23rd March, 8-30 P.M.	Baidyanathpur mine, Pandaveswar P. O., Bengal.	Samlā Govindpur Collieries, Ld.	Jamuna Domin, (f.), 36, Coal-carrier.	Coal	Deceased walked under some roof coal which was being dressed, when a mass, 3' x 2' x 1', fell upon her from a height of 12 feet. She was killed instantly. Inspection and inquiry made.
23	23th March, 6 P.M.	Khost mine, Khost P. O., Baluchistan.	North Western Railway.	Kartar Singh, (m.), 28, Mine mate; Sultan, (m.), 22, Carpenter; Sanno, (m.), 30, Gul Husan, (m.), 20, Labourers.	Coal	The deceased were engaged in removing the timber supports of an abandoned main road, and were using a Sylvester machine for the purpose. Whilst a prop was being withdrawn the anchor prop gave way. A fall of roof occurred and five sets of timber were knocked out. Deceased were struck down and killed.
24	29th March, 4-30 A.M.	Loyabad mine, Bansjora P. O., Bihar and Orissa.	Burrakur Coal Co., Ld.	Panchon Mahato, (m.), 28, Labourer.	Coal	Deceased was killed by a piece of roof stone, weighing about 1 cwt., which fell from a height of about 25 feet. Inspection and inquiry made.
25	29th March, 8-30 P.M.	Aurrung mine, Charanpur P. O., Bengal.	Aurrung Coal Co., Ld.	Santal Manjhi, (m.), 16, Coal carrier.	Coal	Deceased went into a fenced gallery, when a mass of stone, 10' x 5' x 2', fell upon him from a height of 9 feet. He sustained serious injuries and died shortly afterwards. Inspection and inquiry made.

26	1st April, 1-30 P. M.	Kurhbarree mine, Girdih P. O., Bihar and Orissa.	East Indian Railway	Nem Meah, (m.), 30, Coal-cutter.	Coal	Deceased broke down two fences and went into a disused gallery. He was struck by a mass of stone, 12' x 4' x 8', which fell from the roof—a height of 10 feet. He was killed instantly. Inspection and inquiry made.
27	19th April, 3 P. M.	Sinidih mine, Katrasgarh P. O., Bihar and Orissa.	Sinidih Coal Con- cern, Ltd.	Thakur Manjhi, (m.), 30, Labourer.	Coal	Deceased was walking along a gallery, 11' feet high, and carrying a basket of coal to the loading siding when a piece of stone, 18' x 4' x 15', weighing about 4 tons, fell from between two 'slips' in the roof running parallel with the road. He was killed instantly. Inspection and inquiry made.
28	21st April, 3-25 P. M.	Jamai mine, Parasia P. O., Central Provinces.	Raj Sahib Mathura Prosad Motilal & Co.	Anandi, (f.), 14, Coal-carrier.	Coal	Deceased was carrying coal along an underground road on which travelling was prohibited. A piece of roof stone, 4' x 34' x 3', fell on her from a height of 10 feet. She was killed instantly. Inspection and inquiry made.
29	23rd April, 1-15 P. M.	Sutikdih mine, Pathardihi P. O., Bihar and Orissa,	Sutikdih Coal Co., Ltd.	Megal Ray, (m.), 29, Coal-cutter.	Coal	Whilst cutting coal in a gallery which had been stopped, deceased was killed by a piece of coal weighing about 10 cwt., which fell from a height of about 8 feet. Inspection and inquiry made.
30	9th May, 4 P. M.	Ramnagar mine, Kulti P. O., Bengal.	Bengal Iron Co., Ltd.	Uday Bauri, (m.), 25, Coal-cutter.	Coal	Whilst deceased was cutting roof coal in a gallery, a mass of roof coal, weighing about 2 tons, fell upon him from between two 'slips' at a height of 12 feet. He succumbed to his injuries an hour later. Inspection and inquiry made.
31	9th May, 6-30 P. M.	Bhulanbarree mine, Pathardihi P. O., Bihar and Orissa.	Bhulanbarree Coal Co., Ltd.	Premdas Bilaspuri, (m.), 40, Coal-cutter.	Coal	Deceased broke down a fence and was loading coal in a place which had been stopped when about 5 tons of roof stone fell from a height of 20 feet and killed him instantly. Inspection and inquiry made.
32	8 C P 25th May, = 2-30 A. M.	Sitalpur/mine, Disergarh P. O., Bengal.	Bengal Coal Co., Ltd.	Karoo Meah, (m.), 27; Dhanoo Ghatwal, (m.), 35, Coal-cutters.	Coal	The deceased left their appointed working place, broke down a fence and entered a disused gallery with the object of extracting fallen coal near a goaf. Some stone fell on them from the roof at a height of 18 feet. Karoo Meah was killed instantly and the other man succumbed to his injuries sixteen hours later. Inspection and inquiry made.
33	10th June, 6-30 P. M.	West Kumardih mine, Ukhra P. O., Bengal.	O. Deddes & Co., Ltd.	Dandu Manjhi, (m.), 30, Coal-cutter.	Coal	Deceased left his working place and went through a fence to load fallen roof coal on the edge of a goaf. Whilst doing so, he was killed instantly by a mass of roof stone, 6' x 3' x 6', which fell from a height of 10 feet. Inspection and inquiry made.
34	11th June, 2-30 A. M.	Bankola mine, Ukhra P. O., Bengal.	Burrakur Coal Co., Ltd.	Sampat Pashi, (m.), 42, Coal-cutter.	Coal	Deceased was dressing down roof coal in a gallery, when a mass of coal, weighing about ½ cwt., fell on him from a height of 7 feet. He sustained injuries to which he succumbed shortly afterwards. Inspection and inquiry made.

APPENDIX II—contd.

List of Fatal Accidents, 1924—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—contd.						
(a) Falls of roof (87 deaths)—contd.						
35	15th June, 4 A.M.	Bhowra mine, Jumadoba P. O., Bihar and Orissa.	Eastern Coal Co., Ld.	Chullan Bhuiya, (m.), 38, Labourer.	Coal	Deceased, whilst loading coal in a gallery, was struck by some coal, weighing about 1 cwt., which fell from a height of 7 feet. He sustained injuries which caused death five weeks later. Inspection and inquiry made.
36	19th June, 5 A.M.	Chora mine, Chora P. O., Bengal.	Chora Collieries, Ld.	Gorabi Majhian, (f.), 23, Coal-carrier.	Coal	Deceased and another woman were loading coal in a gallery after blasting, when a mass of coal, 3' x 2' x 2', fell upon them from a height of 20 feet. Deceased encumbered to her injuries shortly afterwards and the other woman sustained serious injuries. Inspection and inquiry made.
37	22nd July, 1 P.M.	Chota Dhemu mine, Sitarampore P. O., Bengal.	Bengal Coal Co., Ld.	Mahadev Paudey, (m.), 38, Pardib Maharaj, (m.), 30, Sirdars. Ramajagir Singh, (m.), 42, Coal-cutter.	Coal	The deceased, contrary to orders, were working on a small coal 'stock' in a goaf, when a mass of roof stones, 30' x 20' x 6', fell upon them from a height of 16 feet. They were killed instantly. Inspection and inquiry made.
38	12th August, 1 P.M.	Khost mine, Khost P. O., Baluchistan.	North Western Railway.	Shankai, (m.), 22, Coal-cutter.	Coal	Whilst deceased was at work on a longwall face in a highly inclined seam a mass of coal fell away from the face. He was buried by the coal and suffocated.
39	16th August, 6-30 P.M.	Lodna mine, Jharis P. O., Bihar and Orissa.	Lodna Colliery Co., (1920) Ld.	Haleem Khan, (m.), 45, Sirdar.	Coal	Deceased was examining a working place after shots had been fired when a piece of roof coal, weighing 1½ tons, fell on him from a height of 14 feet. He was killed instantly. Inspection and inquiry made.
40	20th August, 4 A.M.	South Alkusa mine, Kusunda P. O., Bihar and Orissa.	Raneegunge Coal Association, Ld.	Sahas Kumari, (f.), 50, Coal-carrier.	Coal	Deceased, whilst loading coal, was struck by a piece of stone, 8' x 5' x 6" which fell from the roof—a height of 17 feet. She was fatally injured. Inspection and inquiry made.

41	4th September, 1-30 P.M.	Ekra Khas mine, Bansjora P. O., Bihar and Orissa.	Maharaja of Cossim- bazar.	Haril Meah, (m.), 35, Kison Teli, (m.), 35, <i>Labourers.</i>	Coal	While assisting to set up props in a gallery the two deceased were struck by a piece of stone, 3'x2'x1', which fell from the roof—a height of 15 feet. They were fatally injured. Inspection and inquiry made.
42	6th September, 4-30 P.M.	Bejdih mine, Sunderohak P. O., Bengal.	Equitable Coal Co., Ltd.	Chandan Gareri, (m.), 38, <i>Coal-cutter.</i>	Coal	Deceased was testing the roof in a gallery, when a mass of coal, 3'x2'x1' fell upon him from a height of 12 feet. He sustained injuries to which he succumbed four hours later. Inspection and inquiry made.
43	9th September, 5-30 P.M.	Rampur mine, Rampur Colliery, P. O. Bihar and Orissa.	Hingir-Rampur Coal Co., Ltd.	Lachhman Kurmi, (m.), 35, <i>Sirdar.</i>	Coal	Deceased, for a necessary purpose, went into a fenced area, and a piece of coal, 3'x8'x6", fell from a height of 10 feet, killing him instantly. Inspection and inquiry made.
44	17th September, 10 A.M.	Tirap mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ld.	Ali Muhammad Mekrani, (m.), 25, Sha Murad Makrani, (m.), 25, <i>Opening men.</i>	Coal	Whilst a number of persons were at work in an 'opening' or chamber, a fall of roof occurred and buried the two deceased, one of whom was killed immediately and the other died three hours later. Inspection and inquiry made.
45	19th September, 8-30 P.M.	Jharis Khas mine, Jharis P. O., Bihar and Orissa.	Standard Coal Co., Ld.	Ramdew Kahar, (m.), 25, <i>Coal-cutter.</i> Rikhal Ahir, (m.), 18 ; Munoeswar Kahar, (m.), 30, <i>Labourers.</i>	Coal	The three deceased, whilst loading coal near a pillar under extraction, were struck by a mass of coal, 20'x6'x18", which fell from the roof—a height of 24 feet. They were killed instantly. Inspection and inquiry made.
46	23rd September, 9-30 P.M.	Bagdigi mine, Jharis P. O., Bihar and Orissa.	Villiers, Ld.	Tehara Bilaspuri, (m.), 28, <i>Coal-cutter.</i>	Coal	Whilst deceased was standing on a ladder in a gallery lowering down some roof coal his crowbar slipped causing him to overbalance. He fell to the floor, a distance of 21 feet, where he was struck by some pieces of falling coal and killed instantly. Inspection and inquiry made.
47	24th September, 12-30 A.M.	Neonodih mine, Jamadoba P. O., Bihar and Orissa.	Bengal Iron Co., Ld.	Motiram Gowala, (m.), 30, <i>Coal-cutter.</i>	Coal	Deceased, whilst sitting in a gallery, was struck by a piece of stone, 2½'x2'x3", which fell from the roof—a height of 12 feet. He sustained a fractured leg and subsequently died. Inspection and inquiry made.
48	30th September, 10-15 A.M.	Kendwadih mine, Kusunda P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	Bodi Rajwar, (m.), 50, <i>Stone-cutter.</i>	Coal	Whilst engaged in re-timbering the roof in the main road near the bottom of a shaft deceased was struck by a mass of stone, 6'x18"x12", which fell from a cavity 12 feet above him. He was killed instantly. Inspection and inquiry made.

APPENDIX II—*contd.*

List of Fatal Accidents, 1924—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—<i>contd.</i>						
(a) Falls of roof (87 deaths)—<i>contd.</i>						
49	30th September, 3 P.M.	Burra Dhemu mine, Sitarampur P. O., Bihar and Orissa.	Burra Dhemu Coal Co., Ltd.	Bara Manjhi, (m.), 40, Coal-cutter; Malati, (f.), 35, Coal-carrier.	Coal	The deceased were instantly killed by a mass of roof coal, 30' x 18' x 2', weighing about 40 tons, which fell from a height of 9 feet. Inspection and inquiry made.
50	4th October, 2-45 P.M.	Bagdigi mine, Jharia P. O., Bihar and Orissa.	Villiers, Ltd.	Bikum Bilaspuri, (m.), 36, Coal-cutter.	Coal	Deceased was standing on a ladder cutting a bench of roof coal 5 feet thick in a gallery 23 feet high. A piece of the coal struck the foot of the ladder and tilted it. Deceased lost his balance and, falling to the floor, received fatal injuries. Inspection and inquiry made.
51	9th October, 10-30 P.M.	Khoet mine, Khoet P. O., Baluchistan.	North Western Railway.	Bahadur Shah, (m.), 35, Coal-cutter.	Coal	Deceased was killed by a fall of roof in a longwall working face.
52	10th October, 12 P.M.	Ekra Khas mine, Bansjora P. O., Bihar and Orissa.	Maharajah of Cosimbazar.	Budhan Singh, (m.), 25, Coal-cutter.	Coal	Deceased was sleeping in the mine when a piece of coal, weighing about 4 lb., fell from a height of 16 feet and fractured his skull. Inspection and inquiry made.
53	17th October, 3-30 A.M.	Dhobidih mine, Giridih P. O., Bihar and Orissa.	Bengal Giridih Coal Co., Ltd.	Mejhni Ghatwarin, (f.), 27, Coal-carrier; Dagon Ghatwar, (m.), 40, Coal-cutter.	Coal	The deceased went inside a fenced goaf to rob coal. They were killed by a mass of stone, 18' x 16' x 2½', which fell from the roof—a height of 11 feet. Inspection and inquiry made.
54	17th October, 12-30 P.M.	Sitalpur mine, Disergarh P. O., Bengal.	Bengal Coal Co., Ltd.	Pokhan Barhi, (m.), 38, Timberman.	Coal	Deceased was engaged in clearing a fall of roof when a second fall took place. Whilst running away to safety he fell and sustained simple fractures of the arm and leg. He died a month later from the effects of gangrene. Inspection and inquiry made.

55	20th October, 1-45 P.M.	Sripur mine, Kalipari P. O., Bengal.	Lodna Colliery Co., (1920) Ld.	Panchi Korani, (c.), 25, Coal-carrier.	Coal	Whilst deceased and others were loading coal in an underground gallery, a mass of roof coal and stone, 10' x 6' x 1', fell from a height of 9 feet. Deceased sustained injuries to which she succumbed three hours later, and two other persons were injured. Inspection and inquiry made.
56	22nd October, 5-30 A.M.	South Kujama mine, Jharia P. O., Bihar and Orissa.	Bigdigi-Kujama Collieries, Ld.	Turabali Meah, (m.), 48, Sirdar; Choto Akloo Meah, (m.), 30, Mohammad Pathan, (m.), 30, Coal-cutters.	Coal	Whilst the deceased were engaged in extracting a pillar of coal, the roof over an area of 60' x 30' collapsed. They were killed instantly. Inspection and inquiry made.
57	26th October, 11-30 A.M.	Sonardih mine, Katragarh P. O., Bihar and Orissa.	P. Dassl.	Dahu Bhuiya, (m.), 39, Coal-cutter.	Coal	With the object of robbing coal from a pillar, deceased went into a gallery which was fenced because of bad roof. He was struck by a piece of stone, 5' x 4' x 18", which fell from a height of 6 feet. He was killed instantly. Inspection and inquiry made.
58	1st November, 11-30 A.M.	Sripur mine, Kalipahari P. O., Bengal.	Lodna Colliery Co., (1920) Ld.	Baghuuath Kniri, (m.), 30, Coal-cutter.	Coal	Deceased, after blasting, was holding a light whilst the sirdar tested the roof, when a piece of stone, 6' x 4' x 1', fell on his head from a height of 15 feet and killed him instantly. Inspection and inquiry made.
59	14th November, 3-30 P.M.	Bou Jumerri mine, Salanpur P. O., Bengal.	Shapurjee Sorabjee	Kulada Ghatwalin, (f.), 35; Looibi Ghatwalin, (f.), 28, Coal-carriers.	Coal	The deceased were sitting together near the face of a gallery which was being driven by a miner and were waiting to load slack coal. A mass of roof coal, 8' x 6' x 8' to 2 feet thick, fell from a 'slip' at a height of 10 feet, killing them instantly. Inspection and inquiry made.
60	26th November, 10 P.M.	Jitpur mine, Jamadoba P. O., Bihar and Orissa.	Bengal Iron Co., Ld.	Souichar Teli, (m.), 25, Stone-cutter.	Coal	Deceased was in the act of levering down a slab of roof stone, weighing about 3 owt., when it fell on him causing injuries from which he afterwards died. Inspection and inquiry made.
61	6th December, 7 P.M.	Ballihari mine, Kusunda P. O., Bihar and Orissa.	Ballihari Coal Co.	Lachman Ahir, (m.), 40, Overman; Chaman Ahir, (m.), 35, Trolleyman; Joynandan Lal, (m.), 30, Munshi.	Coal	The deceased, whilst testing the roof in a main level, were killed by a block of coal, weighing about 3 tons, falling from a height of about 12 feet. Inspection and inquiry made.
62	20th December, 12-30 P.M.	New Kessurgurah mine, Nawagarh P. O., Bihar and Orissa.	New Kessurgurah Coal Co., Ld.	Bandhi Bhuiyan, (f.), 35, Coal-carrier.	Coal	Deceased passed through a fence and was killed by a fall of about 8 owt. of stone from a height of about 8 feet. Inspection and inquiry made.

APPENDEX II—*contd.*

List of Fatal Accidents, 1924—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—<i>contd.</i>						
(a) Falls of roof (37 deaths)—<i>contd.</i>						
63	23rd December, 3 P.M.	Joba mine, Kalipahari P. O., Bengal.	Burrakur Coal Co., Ld.	Makhan Korah, (m.), 17, Labourer.	Coal	Whilst deceased was loading coal he was killed by a mass of roof stone, 7' x 2' x 1', which fell from a height of 12 feet. Inspection and inquiry made.
64	23rd December, 12 A.M.	Tejwala mine, Dhak P. O., Punjab.	Northern India Coal Co.	Dewana, (m.), 27, Coal-cutter.	Coal	Deceased was undercutting in a seam of coal, 5 feet thick, when a piece of coal and stone, 2' x 3' x 1' = 6", weighing about 10 cwt., fell on him. His spine was fractured and he died four hours later. Inspection and inquiry made.
65	24th December, 1 A.M.	South East Baraboni mine, Charanpur P. O., Bengal.	Maharaja of Cosimbazar.	Sarada Baurin, (f.), 50, Labourer.	Coal	Whilst a miner was taking down roof coal in a gallery, 8 feet in height, deceased unknown to him and against orders, entered the place with the object of loading coal. A mass of roof coal fell upon her causing injuries which proved fatal. Inspection and inquiry made.
66	27th December, 3-15 P.M.	New Tetturya mine, Katragarh P. O., Bihar and Orissa.	New Tetturya Coal Co., Ld.	Juman Bhuiya, (m.), 28, Coal-cutter.	Coal	Deceased passed through a fence and was cutting coal from the side of a pillar when a mass of stone, weighing about 9 tons, fell on him from a height of 10 feet. Inspection and inquiry made.
67	28th December, 2-30 A.M.	Albion mine, Nudkharhi P. O., Bihar and Orissa.	Albion Coal Co., Ld.	Jeta Bilaspuri, (m.), 17, Aghori Bilaspuri, (m), 42, Coal-cutters.	Coal	The deceased were killed by a fall of coal weighing about 8 tons. Inspection and inquiry made.
(b) Falls of side (64 deaths).						
68	4th January, 7 A.M.	Gandhala mine, Dandot P. O., Punjab.	Pandit Gian Chand	Karim Dad, (m.), 29, Coal-cutter.	Coal	Deceased, whilst working in a gallery, was struck by a piece of shale, 5' x 4' x 18", which fell from the side, at a height of 2 feet. He received injuries from which he died half an hour afterwards. Inspection and inquiry made.

69	4th Janua y, 5.30 P.M. r	Drobidih mine, Giridih P. O., Bihar and Orissa.	Bengal Giridih Coal Co., Ld.	Lekhis Turin, (f.), 25, Coal-carrier.	Coal	Whilst deceased was loading coal in a place where pillars of coal were being extracted a piece of coal, 3' x 2' x 9", weighing about 3 cwt., fell on her from the side at a height of 11 feet. She died shortly afterwards from the injuries received. Inspection and inquiry made.
70	17th January, 10 A.M.	Gopalohuck West mine, Kusunda P. O., Bihar and Orissa.	Gopalohuck Coal Co., Ld.	Mankia Kaharin, (f.), 14, Labourer.	Coal	Deceased went into a fenced gallery for a natural purpose and was killed by a fall of coal weighing 3 tons. Inspection and inquiry made.
71	18th January, 4 P.M.	Panderwani mine, Paraswaraghat P. O., Central Provinces.	B. P. Byramji & Co.	Gaggi Dalpat, (f.), 50, Labourer.	Manganese Ore.	Deceased was killed by a fall of 1½ tons of overburden in an open excavation 8 feet deep. Inspection and inquiry made.
72	4th February, 11-30 A.M.	Aulajheri mine, Bharweli P. O., Central Provinces.	Ditto.	Dhondal, (m.), 18, Ghasuni, (m.), 12, Labourers.	Manganese Ore.	The deceased were killed by a mass of overburden, 10' x 2½' x 3', weighing about 2 tons, which fell from a height of 12 feet from the side of an open excavation. Inspection and inquiry made.
73	12th February, 5 P.M.	Ukwa mine, Ukwa P. O., Central Provinces.	Carnegie Steel Co.	Gagas Gond, (m.), 28, Labourer.	Manga- nese Ore	Deceased was standing on a ledge about 1 foot wide, barring down a piece of manganese. The bar slipped and he fell 6 feet to the floor of the quarry. The piece of ore weighing 8 cwt., which he had been levering off, fell from a height of 6 feet and crushed him. Death was instantaneous. Inspection and inquiry made.
74	22nd February, 5 P.M.	Jhonka mine, Tisri P. O., Bihar and Orissa.	Ram Rich Pal.	Manhush Meah, (m.), 35, Nuzali Kalal, (m.), 40, Miners.	Mica	The hanging wall of soft pegmatite rock in a short gallery off the side of a shaft gave way, and about 2 tons of the rock fell on the deceased who were working in the bottom of the shaft. Inspection and inquiry made.
75	24th February, 12 A.M.	Tandaiya mine, Domchanch P. O., Bihar and Orissa.	Johur and Sundar Mull & Co.	Sohan Roy, (m.), 30, Driller.	Mica	Whilst deceased was dressing the side of an underground road preparatory to timbering it, he was struck by a mass of pegmatite, weighing about 3 cwt., which fell from the side. He was killed instantly. Inspection and inquiry made.
76	9th March, 9 A.M.	Central Kurkend mine, Kusunda P. O., Bihar and Orissa.	Central Kurkend Coal Co., Ld.	Budhia, (f.), 25, Coal-carrier.	Coal	Deceased entered a fenced gallery with her husband and was killed by a fall of stone weighing 3 cwt., from a height of 6 feet. Inspection and inquiry made.
77	9th March, 5 A.M.	Teetalmuri mine, Sijua P. O., Bihar and Orissa.	Burrakur Coal Co., Ld.	Dalu Meah, (m.), 45, Coal-cutter.	Coal	Deceased went into a gallery which was fenced because it was unsafe. A mass of coal, 15' x 11' x 4', weighing about 22 tons, fell from a 'slip' in the side and buried him. He was killed instantly. Inspection and inquiry made.
78	1th March, 4 P.M.	Kankanee mine, Bansjora P. O., Bihar and Orissa.	Eastern Coal Co. Ld.	Lakhi Ram Manjhi (m.), 28 Coal-cutter.	Coal	Deceased, whilst loading a basket with coal, was struck by a piece of coal, 8' x 3' x 17', which fell from between two 'slips' in the side. He was seriously injured and died two days later. Inspection and inquiry made.

APPENDIX I:1—contd.

List of Fatal Accidents, 1924—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—contd.						
(i) Falls of side (64 deaths) — contd.						
79	22nd March 5-30 P.M.	Randougri mine, Ramakona P. O., Central Provinces.	Indian Manganese Co., Ltd.	Jai, (f.), 30, Labourer.	Manga- nese Ore	At a time when the mine was closed for a festival, deceased with four other coolies went there to work and was killed by a fall of loose earth in an old dump working 6' deep. Inspection and inquiry made.
80	27th March 10 A.M.	Bansjora mine, Bansjora P. O., Bihar and Orissa.	Bansjorah Coal Co., Ltd.	Somar Rajwar, (m.), 25, Labourer.	Coal	Whilst deceased was filling a basket of coal in a quarry he was struck by a mass of stone and earth, 10' x 7' x 2½', which fell from the side at a height of 11 feet. He was killed instantly. Inspection and inquiry made.
81	1st April, 5 A.M.	Hurriladh mine, Jharia P. O., Bihar and Orissa.	Equitable Coal Co., Ld.	Benis Bilaspuri, (m.), 22, Coal-cutter.	Coal	Deceased, whilst robbing a pillar in a fenced place, was struck by a mass of coal, 8' x 3' x 1', which fell from the side. He sustained injuries from which he died two days later. Inspection and inquiry made.
82	15th April, 2-30 A.M.	Khost mine, Khost P. O., Baluchistan.	North Western Railway.	Fazal Illahi, (m.), 21, Labourer.	Coal	Deceased and a carpenter were engaged in clearing an old road dipping at 48° when a slide of loose stone lying on the floor took place. The carpenter obtained refuge in a manhole, but deceased was carried down for 25 feet and buried in the loose stone. When extricated he was found to have been suffocated.
83	17th April, 7-30 P.M.	Bagdigi mine, Jharia P. O., Bihar and Orissa.	Villiers, Ld.	Nuckoher Bilaspuri, (m.), 32, Coal-cutter.	Coal	Deceased was killed by a piece of coal weighing about 15 cwt., which fell from a height of about 20 feet. Inspection and inquiry made.
84	23rd April, 10 A.M.	Bhalgora mine, Jharia P. O., Bihar and Orissa.	Bhalgora Coal Co., Ld.	Firingi Kahar, (m.), 24, Coal-cutter.	Coal	Deceased was struck on the foot by a piece of coal weighing 4 cwt., which fell from a height of 12 feet. He died from loss of blood. Inspection and inquiry made.
85	3rd May, 11-30 A.M.	Khas Jherria mine, Jharia P. O., Bihar and Orissa.	Khas Jherria Colli- ery Co., Ld.	Sanu Dasadh, (m.), 30, Stone-cutter.	Coal	Deceased was employed in cutting floor stone in a gallery 14 feet wide and 11 feet high. Two rounds of shots were fired, and some little time after a wedge-shaped mass of coal, 10' x 18' x 15', presumably affected by the blasting, fell from the side at the roof. This coal, weighing some 10 cwt., struck deceased and killed him instantly. Inspection and inquiry made.

86	16th May, 2 P.M.	Lodna mine, Jharia P. O., Bihar and Orissa.	Lodna Colliery Co., (1920) Ld.	Puttee Deswalin, (f.), 51, Labourer.	Coal	Deceased with two other women went into a fenced area to load slack coal. A piece of coal weighing 1 cwt. fell upon her from a height of 19 feet. She was killed instantly. Inspection and inquiry made.
87	23rd May, 10-20 P.M.	Sirka mine, Bamgarh P. O., Bihar and Orissa.	South Karanpura Coal Co., Ld.	Rajabaria, (f.), 36, Labourer.	Coal	Deceased was killed by a fall of overburden in a quarry.
88	24th May, 4 A.M.	Huntodih mine, Mohuda P. O., Bihar and Orissa.	Huntodih Coal Co., Ld.	Hari Kurmi, (m.), 47, Coal-cutter.	Coal	Deceased, whilst robbing coal in a fenced gallery, was struck by a mass of coal, 6' x 3' x 1', which fell from the side at a height of 7 feet. He was fatally injured. Inspection and inquiry made.
89	26th May, 3-30 P.M.	Khost mine, Khost P. O., Baluchistan.	North-Western Railway.	Muhammad Ali, (m.), 40, Coal-cutter.	Coal	Deceased was in a longwall working in a highly inclined seam when the coal face and the floor of the working slipped down on the plane of the seam. He was buried and suffocated.
90	28th May, 6 P.M.	Borra mine, Sikarampur P. O., Bengal.	New Bearbhoom Coal Co., Ld.	Sami Majhian, (f.), 13, Coal-carrier.	Coal	Deceased was employed near the face of a pillar under extraction, when a mass of coal, 4' x 3' x 2', fell from the face from between two 'slips' at a height of 10 feet. She was killed instantly. Inspection and inquiry made.
91	29th May, 3 P.M.	New Kessurgurah mine, Nawagarh P. O., Bihar and Orissa.	New Kessurgurah Coal Co., Ld.	Khara Manjhi, (m.), 27, Coal-cutter.	Coal	Deceased was one of a gang of miners engaged in the extraction of a pillar of coal in a seam 20 feet thick with a 12 inch band of stone 6 feet from the floor. They had undermined the band to a distance of 5 feet when a portion of it fell upon deceased, who was loading coal into a basket at the time. He was seriously injured and died three months later. Inspection and inquiry made.
92	4th June, 6-30 A.M.	Narsamuda mine, Asansol P. O., Bengal.	Seeterampore Coal Co., Ld.	Madhu Manjhi, (m.), 52, Onecutter.	Coal	Deceased and another man were standing on a main road near the bottom of a shaft when they were struck by a mass of stone, 3' x 2' x 6', which fell from the side at a height of 10 feet. Deceased succumbed to his injuries two hours later and the other man sustained serious injuries. Inspection and inquiry made.
93	4th June, 11 P.M.	Damagurra mine, Kulti P. O., Bengal.	Damagurra Coal Co., Ld.	Chandrai Manjhi, (m.), 30, Coal-cutter.	Coal	Deceased left his appointed working place and was cutting coal on the side of a quarry when a mass of coal, 3'-6" x 3'-9" x 2', fell upon him from a 'slip' at a height of 10 feet. He was killed instantly. Inspection and inquiry made.

APPENDIX II—contd.

List of Fatal Accidents, 1924—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—contd.						
(b) Falls of side (64 deaths)—contd.						
94	7th July, 12 A.M.	New Pipratand mine, Mohuda P. O., Bihar and Orissa.	P. Mukherjee & Co.	Dokta Beldar, (m.), 14, Labourer. Biju Bauri, (m.), 33, Coal-cutter. Loop Lal Kamar, (m.), 50, Fitter.	Coal	The deceased, whilst engaged in fitting a pump in an in-line cutting, were buried by a mass of earth and decomposed shale, 50' x 5' x 7½', which fell from the side. They were fatally injured. Inspection and inquiry made.
95	9th July, 9-40 A. M.	Bawdwin mine, Namtu P. O., Burma.	Burma Corporation, Ld.	Dullap, (m.), 33, Labourer.	Lead-silver.	During heavy rain deceased was carrying timber into a tunnel, when some boulders, weighing about 1½ tons were washed down the side of the hill. He was struck by the boulders and sustained injuries to which he succumbed shortly afterwards. Inspection and inquiry made.
96	12th July, 11-45 A. M.	Titap mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ld.	Mongroo Munda, (m.), 30, Coal-cutter.	Coal	Deceased was at work in a roadway, 8' wide by 6' high, in a highly inclined seam. A mass of coal, 9' x 4' x 2', fell from the side of the roadway and killed him. Inspection and inquiry made.
97	19th July, 11-30 A. M.	Jharis Khas mine, Jharis P. O., Bihar and Orissa.	Jagannath Ramjash Agarwalla.	Sonar Panka, (m.), 35, Coal-cutter.	Coal	Deceased, whilst robbing coal in a gallery, was struck by a mass of coal, 30' x 7' x 2', which fell from a 'slip' in the corner of a pillar. He was fatally injured. Inspection and inquiry made.
98	16th August, 12-30 P. M.	Kirkend mine, Kusunda P. O., Bihar and Orissa.	Sudamdih Coal Co., Ld.	Botto Kanta, (m.), 20, Coal-cutter.	Coal	Deceased, on returning to his working place after a shot had been fired, was struck by a piece of coal, 8' x 2' x 8", which fell from the side at a height of 12 feet. He was killed instantly. Inspection and inquiry made.
99	19th August, 2 P. M.	Hermyingyi mine, Hermyingyi P. O., Burma.	Burma Finance and Mining Co., Ld.	Akhok, (f.), 34, Labourer.	Tin and Wolfram.	Deceased was undermining a boulder, weighing about 2 cwt., in a surface trench, when the boulder fell and killed her instantly. Inspection and inquiry made.

100	21st August, 8-45 A. M.	Sudamdih mine, Pathardihi P. O., Bihar and Orissa.	Sudamdih Coal Co., Ld.	Ramchand Rohidas, (m.), 45, Bhyaram Rohidas, (m.), 20, Coal-cutters.	Coal	Percolating water caused a mass of overburden in a quarry to slide down the top of a highly inclined seam of coal. The deceased were covered by the debris and were suffocated. Inspection and inquiry made.
101	21st August, 9-30 A. M.	Taungzun mine, Taungzun P. O., Burma.	Oosman Masi Khan & Co.	Sabbia Madrassi, (m.), 30, Loader. Nataiya Uria. (m.), 25, Miner.	Stone	The deceased were at work in a quarry, 300' x 40' x 90' deep, when a mass of side, weighing about 40 tons, fell without warning. Nataiya who was drilling on the opposite side of the quarry was killed on the spot, and Sabbia who was loading succumbed to his injuries a few hours later. Three other persons were injured. Inspection and inquiry made.
102	24th August, 1 P. M.	Prospecting Pit (Sq. 38) mine, Kodarma P. O., Bihar and Orissa.	Nund and Samont Co., Ld.	Gulu Gope, (m.), 18, Miner.	Mica	Whilst deceased was working in prospecting pit 8 feet deep, he was fatally injured by a mass of earth, 3' x 2' x 1', which fell from the side. Inspection and inquiry made.
103	27th August, 10 A. M.	Saltore mine, Disorgarh P. O., Bihar and Orissa.	Burrakur Coal Co., Ld.	Luke Majkian, (f.), 14, Coal-carrier.	Coal	It is presumed that deceased was lying down in a gallery when a mass of coal, 1' x 1' x 1', fell upon her from a 'slip' at a height of 12 feet. She sustained fatal injuries and died two hours later. Inspection and inquiry made.
104	29th August, 10 A. M.	Hermyingyi mine, Hermyingyi P. O., Burma.	Burma Finance and Mining Co., Ld.	Wah Yee San, (m.), 41, Tribute worker.	Tin and wol- fram.	Deceased, who was employed in 'ground-slucing' on the side of a hill, had cut into a quartz vein to a depth of 3 feet, when a portion of the 'hanging wall' weighing 1 cwt., was washed down on to him. He sustained injuries which caused death three days later. Inspection and inquiry made.
105	30th August, 9 A. M.	Bansdeopur mine, Kusunda P. O., Bihar and Orissa.	Bansdeopur Coal Co., Ld.	Kashi Ram Ghara, (m.), 30, Coal-cutter.	Coal	Deceased left his allotted working place in a quarry and was cutting coal in another part of the quarry which was not a working place when a pease of coal, 5' x 3' x 1', fell upon him from a height of 15 feet, causing fatal injuries. Inspection and inquiry made.
106	30th August, 3-30 P. M.	Bansjorah mine, Bansjorah P. O., Bihar and Orissa.	Bansjorah Coal Co., Ld.	Pamia Bhuiyan, (f.), 26, Coal-carrier.	Coal	Whilst deceased and her husband were robbing coal in a disused and fenced quarry, the former was killed by a mass of coal and stone, weighing some 8 tons, which fell from the side. Inspection and inquiry made.
107	2nd September, 12 A. M.	Kalonta mine, Tavoy P. O., Burma.	Burma Finance and Mining Co., Ld	Ah Aim, (m.), 35, Tribute worker.	Tin and wol- fram.	Deceased was under cutting the side of a ground sluicing channel when a mass of side, weighing about 10 cwt. fell on him from a height of 10 feet, killing him instantly. Inspection and inquiry made.
108	6th September, 11 A. M.	New Keesurgurah mine, Nawagarh P. O., Bihar and Orissa.	New Keesurgurah Coal Co., Ld.	Beechram Gope, (m.), 35, Coal-cutter.	Coal	Deceased, whilst robbing coal in a fenced gallery, was injured by a mass of coal, weighing about one ton, which fell from the side of a pillar. He sustained injuries which subsequently caused death. Inspection and inquiry made.

- APPENDIX II—contd.

List of Fatal Accidents, 1924—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—contd.						
<i>(b) Falls of side (84 deaths)—contd.</i>						
109	13th September, 7 A.M.	Bararee mine, Jamadoba P. O., Bihar and Orissa.	East Indian Coal Co., Ltd.	Mangtee, (f.), 26, Coal-carrier.	Coal	The husband of deceased was robbing a pillar, when the latter was injured by a piece of coal, weighing ½ cwt., which fell from the side. She died from septic poisoning 14 days later. Inspection and inquiry made.
110	15th September, 12 A.M.	Awadung mine, Mergui P. O., Burma.	J. F. Leslie and Burma Malaya Mines, Ltd.	Lam Foke, (m.), 47, Tribute worker.	Tin	Deceased with several other persons was engaged in clearing some trees from a water channel, one side of which was 14 feet deep and sloped at about 1 in 10, when a mass of side, weighing about 10 cwt., fell on him from a height of 8 feet. He appeared to have sustained slight injuries only, but he succumbed five hours later. Inspection and inquiry made.
111	27th September, 5-30 P.M.	Jharia Khas mine, Jharia P. O., Bihar and Orissa.	Jaganuath Ramjash Agarawalla.	Ful Kumari, (f.), 40, Panch Kari, (m.), 22, Coal-carriers.	Coal	The deceased, whilst loading small coal in a disused gallery, were killed by a mass of coal, weighing about 2 tons, which fell from the side of a pillar. Inspection and inquiry made.
112	4th October, 10-30 A.M.	Damagurria mine, Kulti P. O., Bengal.	Damagurria Coal, Co., Ltd.	Garbha Roy, (m.), 28, Labourer.	Coal	Whilst overburden was being cut in a quarry, a mass of ground, weighing about 15 cwt., fell on to the level on which deceased was working. He attempted to jump clear but fell upon his pick sustaining injuries, to which he succumbed nine days later. Inspection and inquiry made.
118	16th October 4-30 P.M.	Bokaro mine, Bokaro P. O., Bihar and Orissa.	East Indian Railway and Bengal Nagpur Railway.	Hursi Poinkin, (f.), 20, Labourer.	Coal	Deceased was killed by a fall of side in an open excavation.
114	29th October, 1 A.M.	Tauugpila mine, Tavoy, P. O., Burma.	Quah Cheng Guan	Ng. Hay, (m.), 32, Tribute worker.	Tin and Wolfram	Deceased was engaged in 'ground sluicing' when he was crushed by a boulder washed down from the side of an adjoining hill. He sustained injuries which caused death nine hours later. Inspection and inquiry made.

115	15th November, 4 P.M.	Gna mine, Dongooposi P. O., Bihar and Orissa.	Indian Iron & Steel Co., Ld.	Rup Singh, (m.), 35, Quarryman.	Iron ore	Deceased was crushed by a boulder of ore, weighing about 10 cwt., which rolled down the sloping face of a quarry. He was killed instantly. Inspection and inquiry made.
116	23rd November, 0-10 A.M.	Madidih mine, Sijua, P. O., Bihar and Orissa.	Barrakur Coal Co., Ld.	Kochin Bilaspuri, (m.), 35, Coal-cutter.	Coal	Deceased was preparing to take down loose coal from the side of a pillar after blasting when a block of coal weighing about 2 tons fell on him from a height of about 18 feet, killing him instantly. Inspection and inquiry made.
117	26th November, 12 P.M.	Bhuggatdih (south section) mine, Jharis P. O., Bihar and Orissa.	Bengal Nagpur Coal Co., Ld.	Ghogru Chamar, (m.), 30, Coal-cutter.	Coal	Deceased, whilst boring a shot-hole in a pillar, was struck by a piece of coal, 4' x 3' x 1', which fell from the side at a height of 8 feet. He was fatally injured. Inspection and inquiry made.
118	28th November, 4 P.M.	Sripur mine, Kalipahari P. O., Bengal	Lodna Colliery Co., (1920) Ld.	Alladhi Korani, (f.), 27, Coal-carrier.	Coal	Deceased was engaged in loading coal which her husband was robbing from the side of a gallery. In under cutting the side a mass of coal, weighing about a ton, fell from a height of 6 feet, striking deceased on the back. She sustained injuries to which she succumbed two hours later. Inspection and inquiry made.
119	29th November, 10-30 P. M.	Joyramdauga mine, Asansol P. O., Bengal.	New Beerbhoom Coal Co., Ld.	Mungal Manjhi, (m.), 22, Coal-cutter.	Coal	Deceased was employed in cutting floor coal. He entered a fenced area and was robbing coal from the corner of a pillar when a mass of coal, 1'-3" x 1'-6" x 1'-6", was dislodged from the overhang at a height of 8 feet and pinned him down. He was killed instantly. Inspection and inquiry made.
120	1st December, 3-30 P. M.	Khost mine, Khost P. O., Baluchistan.	North Western Railway.	Kassim, (m.), 23, Labourer.	Coal	Whilst deceased was at work in a longwall working in a highly inclined seam a mass of coal fell away from the face. He was struck by the coal and sustained injuries which subsequently proved fatal.
121	2nd December, 9-30 A. M.	Tikak mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ld.	Ong Fa, (m.), 32, Labourer.	Coal	Deceased was robbing coal from the side of a gallery when a large mass of coal fell on him. He died from his injuries shortly after. Inspection and inquiry made.
122	23rd December, 8-30 P.M.	Naungthakhaw mine, Namtu P. O., Burma.	Burma Corporation Ld.	Hyoung Chaul Tsine, (m.), 27 ; Leh Zin Yon, (m.), 25, Miners.	Iron ore	The deceased, contrary to orders, were undercutting the side of a quarry which was known to be dangerous, when they were buried by a fall of several tons of overburden. They were suffocated before they could be extricated. Inspection and inquiry made.
123	26th December, 1 A.M.	Budroochuck mine, Sijua P. O., Bihar and Orissa.	Budroochuck Coal Mining Co., Ld.	Churka Manjhi, (m.), 20, Coal-carrier.	Coal	An overhanging piece of coal, 6' x 3'-6" x 1'-6", fell from a height of 6 feet from the side of a gallery, on to deceased who was stooping down to fill a basket with coal. He was killed instantly. Inspection and inquiry made.

- APPENDIX II—contd.

List of Fatal Accidents, 1924—contd.

Serial number	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
IN SHAFTS (ROPES AND CHAINS BREAKING.) (5 deaths.)						
124	10th March, 8 A.M.	Pandaveswar mine, Pandaveswar P. O., Bengal.	Highfield Colliery, Ld.	Tara Singh, (m.), 25, Foreman Labourer.	Coal	Whilst deceased and another man were being raised in a shaft, 147 feet deep, the winding rope broke at the capping. Deceased fell to the bottom of the shaft and was killed. The other man escaped by clinging to the rail carrying the landing trolley. It was presumed that the rope had been overstrained by using it to lift a range of pipes fixed in the shaft. Inspection and inquiry made.
125	1st November, 10 A.M.	Bagdigi mine, Jharla P. O., Bihar and Orissa.	Villiers, Ld.	Banglall Turi, (m.), 22; Bhola Bay, (m.), 23; Usir Hasam, (m.), 21; Lakna Turi, (m.), 22; Sinkers.	Coal	Whilst a bucket was being raised in a sinking pit the winding rope broke. The bucket fell a distance of 430 feet to the bottom, where thirteen persons were at work and caused in the death of four persons. Inspection and inquiry made.
IN SHAFTS (WHILEST ACCENDING AND DESCENDING BY MACHINERY)(10 deaths.)						
126	5th February, 12-30 P.M.	Narsamuda mine, Asansol P. O., Bengal,	Sesterampore Coal Co., Ld.	Baghu Kora, (m.), 30, Coal-cutter.	Coal	Whilst being lowered in a cage in a winding shaft, 310 feet deep, deceased, thinking the cage had reached the bottom, stepped out. He fell to the bottom 6 feet below and sustained injuries to which he succumbed two hours later. Inspection and inquiry made.
127	20th February, 4-30 P.M.	Bararee mine, Jamadoba P. O., Bihar and Orissa.	East Indian Coal Co., Ld.	Tikra Chamar, (m.), 14, Coal-cutter; Burga Chamar, (m.), 13, Pilla Chamar, (m.), 12, Labourers.	Coal	Whilst the three deceased were being raised in a shaft, 360 feet deep, they fell from the cage to the shaft bottom—a distance of approximately 120 feet. They were fatally injured. Inspection and inquiry made.

128	8th March, 10-30 A.M.	Borrae mine, Sitarampur P. O., Bengal.	New Beerbhoom Coal Co., Ltd.	Thaki Baurin, (f.), 19, Coal-carrier.	Coal	Deceased and four other persons were being lowered in a shaft 284 feet deep. The cages collided, and she was thrown out and fell a distance of 117 feet to the bottom of the shaft. She was killed instantly. Inspection and inquiry made.
129	19th June, 4 P.M.	Malkera mine, Katrasgarh P. O., Bihar and Orissa.	Tata Iron & Steel Co., Ltd.	Karim, (m.), 40, Fitter.	Coal	Whilst deceased was descending a shaft in a cage, the latter struck a girder fixed in the shaft. Deceased was thrown off and fell to the shaft bottom, a distance of 160 feet. He was killed instantly. Inspection and inquiry made.
130	8th July, 5-45 A.M.	Ena mine, Jharis P. O., Bihar and Orissa.	North West Coal Co., Ltd.	Lal Mahomed Meah, (m.), 35, Munshi.	Coal	Whilst ascending a shaft deceased fell from the cage to the bottom of the shaft. He was killed instantly. Inspection and inquiry made.
131	30th July, 7 A.M.	Bararee mine, Jamadoba P. O., Bihar and Orissa.	East Indian Coal Co., Ltd.	Isauk Meah, (m.), 40, Labourer.	Coal	Deceased, while descending a shaft in a cage, removed the safety bars and stepped off the cage while it was still in motion. He fell to the shaft bottom, and was fatally injured. Inspection and inquiry made.
132	21st August, 5 A.M.	Pretoria mine, Charanpur P. O., Bengal.	Seebpore Coal Co., Ltd.	Jana Bibi, (f.), 25, Coal-carrier.	Coal	Deceased, with four other persons, was being raised in a cage in a shaft, 340 feet deep, when she fell from the cage to the bottom of the shaft—a distance of 170 feet—and was killed instantly. Inspection and inquiry made.
133	25th December, 2-30 A.M.	Malkera mine, Katrasgarh P. O., Bihar and Orissa.	Tata Iron & Steel Co., Ltd.	Khedoo Rajwar, (m.), 26, Coal-cutter.	Coal	Deceased and a companion were being hoisted in a shaft 440 feet deep. At the same time an empty tub was being lowered in the descending cage. Owing to one of the tub-catches having been put out of action, the empty tub fell off the descending cage, struck the ascending cage and caused deceased to be thrown out of the latter, and to fall about 60 feet to the shaft bottom. Inspection and inquiry made.
IN SHAFTS (FALLING INTO THE SHAFT FROM THE SURFACE) (3 deaths.)						
134	2nd January, 8-30 P.M.	Industry mine, Jharis P. O., Bihar and Orissa.	Industry Coal Co., Ltd.	Matuki Dhanuk, (m.), 35, Surface Trolleyman.	Coal	Deceased was assisting in re-railing a derailed tub when he slipped and fell over the fence into the shaft. He fell a distance of 110 feet, and was killed instantly. Inspection and inquiry made.
135	26th April, 7-30 P.M.	Central Kajora mine, Andal P. O., Bengal.	Central Kajora Coal Co., Ltd.	Ali Ahmed, (m.), 25, Boiler fireman.	Coal	A crane with boiler attached was being used for raising debris out of a sinking shaft, 31 feet deep. Deceased was in charge of the boiler. During a storm he fell into the shaft through a small opening left in the fencing to permit free movement of the crane. He struck his head against a bucket lying at the bottom of the shaft and was killed instantly. Inspection and inquiry made.

APPENDIX II—contd.

List of Fatal Accidents, 1924—contd.

Serial number	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
IN SHAFTS (FALLING INTO THE SHAFT FROM THE SURFACE.) (8 deaths)—contd.						
136	8rd August, 11 P.M.	Central Kujama mine, Jharis P. O., Bihar and Orissa.	Central Kujama Coal Concern.	Chhaku Mahato, (m.), 35, Bankman.	Coal	Deceased, while stepping off the landing trolley at the top of a sinking shaft, 181 feet deep, slipped and fell between the trolley and the edge of the shaft. He fell into water at the bottom of the shaft and was drowned. Inspection and inquiry made.
IN SHAFTS (FALLING FROM PART OF THE WAY DOWN) (5 deaths.)						
137	25th January, 1 P.M.	Borra mine, Sitarampur P. O., Bengal.	New Beerbhoom Coal Co., Ltd.	Surendra Rajwar, (m.), 22, Pumpman.	Coal	Whilst a pump was being raised in a shaft the bearings of the supporting pulley broke and the pump dropped several feet. Deceased, who was standing on the pump and guiding it, was jerked off and fell a distance of 180 feet into the water at the bottom of the shaft. Inspection and inquiry made.
138	29th March, 8 P.M.	Bawdwin mine, Nanta P. O., Burma.	Burma Corporation, Ltd.	Sam Chow, (m.), 30, Fa Qui, (m.), 32, Leo She Qui, (m.), 31, Miners.	Silver-lead.	A gang of men was engaged in removing temporary lining timber from a shaft 14 feet in diameter when a portion of the staging on which the men were working collapsed, due to a nut of one of the hanging bolts having been lost. Three men fell a distance of 100 feet and were killed instantly. Inspection and inquiry made.
139	27th April, 12-40 P.M.	Damagurria mine, Kulti P. O., Bengal.	Damagurria Coal Co., Ltd.	Kaloo Kole, (m.), 23, Coal-cutter.	Coal	Three men entered a disused mine with the intention of stealing timber. Deceased and one of the men fell down a shallow shaft and sustained injuries to which deceased succumbed seven months later.
140	3rd July, 10 A.M.	Central Kurkend mine, Kusunda P. O., Bihar and Orissa.	Central Kurkend Coal Co., Ltd.	Lala Panjabi, (m.), 35, Foreman labourer.	Coal	Deceased was standing at a mid-inset in a shaft and superintending the lowering of an electric cable by hand. The weight of the cable became too great for the persons who were lowering it and they let it go. Deceased was struck by the end of the cable and fell to the bottom of the shaft. He was killed instantly. Inspection and inquiry made.

141	27th November, 12 P.M.	Jarangdih mine, Bokaro P. O., Bihar and Orissa.	Bombay, Baroda and Central India and Madras and Southern Mahratta Railways.	Mysore Antony, (m.), 42, Sinker.	Coal	Whilst at work on a scaffold in a sinking shaft, deceased fell from the scaffold to the bottom of the shaft, and was killed instantly.
42	25th December, 7-50 A.M.	Bawdwin mine, Namtu P. O., Burma.	Burma Corporation, Ld.	Chudamony, (m.), 28, Fitter.	Lead-silver.	Whilst climbing a ladder in winze, deceased missed his footing and fell to the bottom. He was instantly killed.

IN SHAFTS (THINGS FALLING FROM THE SURFACE) (1 death.)

148	29th August, 3 A.M.	Khas Jherria mine, Jharia P. O., Bihar and Orissa.	Khas Jherria Colliery Co., Ld.	Hari Roy, (m.), 25, Onsetter.	Coal	Whilst at work at the bottom of a winding shaft, 360 feet deep, deceased was struck and killed by coal which fell down the shaft. Inspection and inquiry made.
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IN SHAFTS (THINGS FALLING FROM PART OF THE WAY DOWN) (2 deaths.)

144	15th March 10-45 P.M.	Ekra Khas mine, Bansjora P. O., Bihar and Orissa.	Maharajah of Cossimbazar.	Khem Chand Gope, (m.), 30, Stone-cutter.	Coal	Deceased, who was lying asleep on a beam in the bottom of a shaft, 150 feet deep, was killed by a piece of stone which fell from the side of the shaft. Inspection and inquiry made.
145	8th September, 8 P.M.	Argada mine, Ramgarh P. O., Bihar and Orissa.	Bengal Nagpur Rail- way Co., Ld.	Bahura Kumar, (m.), 28, Sinker.	Coal	Whilst engaged in sinking a well, deceased was struck and fatally injured by stone which fell from the side of the well.

IN SHAFTS (MISCELANEOUS) (2 deaths.)

146	19th September, 12-30 A.M.	Bullhari mine, Kusunda P. O., Bihar and Orissa.	Chuni Lal Coal Co.	Jangali Meah, (m.), 22, Pumpman.	Coal	Deceased, whilst attempting to cross the bottom of a shaft, was struck by the down coming cage and killed instantly. Inspection and inquiry made.
147	26th October, 6 A.M.	Mohpani mine, Mohpani P. O., Central Provinces.	Great Indian Penin- sula Railway.	Munda Teli, (m.), 37, Onsetter.	Coal	Deceased was crushed beneath the descending cage at the bottom of a shaft and killed instantly. Apparently he had been looking up the shaft after he had signalled for the cage to be lowered. Inspection and inquiry made.

APPENDIX II—contd.

List of Fatal Accidents, 1924—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
BY EXPLOSIVE (26 deaths.)						
148	2nd January, 11 P.M.	Sendra mine, Bansjora P. O., Bihar and Orissa.	Sendra Coal Co., Ltd.	Kunja Dosadh, (m.), 34, Coal-cutter.	Coal	Whilst underground in a mine, deceased removed the lid of a gunpowder canister. The powder became ignited and he sustained burns which caused death three days later. Inspection and inquiry made.
149	10th January, 12-30 P.M.	Gua mine, Dongsoaposi P. O., Bihar and Orissa.	Indian Iron & Steel Co., Ltd.	Byer Singh, (m.), 26, Labourer.	Iron ore	Deceased and two other persons were carrying 10 lb. of dynamite, 6 lb. of compressed gunpowder and 80 detonators in separate open boxes from the magazine to the place of blasting. Whilst they were resting one of the men threw a lighted cigarette on to the gunpowder. The gunpowder was ignited and in turn ignited the dynamite. The three persons sustained injuries and deceased died about a day later. Inspection and inquiry made.
150	10th January, 5-30 P.M.	Bansjora mine, Bausjora P. O., Bihar and Orissa.	Bansjora Coal Co., Ltd.	Jharu Dhimar, (m.), 18, Coal-cutter.	Coal	Deceased was severely injured by an ignition of gunpowder in a quarry and died shortly afterwards. Five other persons were injured. Inspection and inquiry made.
151	13th February, 5 P.M.	Jibutli mine, Morrison P. O., Madras.	Jibutli (Amantapur) Gold Mines Ltd.	Subrayanpalli Sanjivi, (m.), 25, Subrayanpalli Chennappa, (m.), 35, Miners.	Gold	The deceased with some eighteen other miners were employed in drilling holes in an underground stope. They commenced to drill in socket of an old hole and brought about an explosion of the residue of a previous charge. Sanjivi was killed instantly and Chennappa sustained injuries which proved fatal. Inspection and inquiry made.
152	16th February, 6 A.M.	Kuardi mine, Kalipahari P. O., Bengal.	Kuardi Coal Co., Ltd.	Sibi Noonla, (m.), 30, Shot-firer.	Coal	Deceased lighted three shots in a gallery and returned after two had exploded. The third shot exploded and killed him instantly. Inspection and inquiry made.
153	29th February, 4 A.M.	Sideshur mine, Rakha Mines P. O., Bihar and Orissa.	North Anantapur Gold Mines, Ltd.	Kaudan, (m.), 33, Labourer.	Copper	Deceased started to drill in the end of an old shot-hole which was suspected to contain unconsumed gelignite. The gelignite exploded and killed him instantly. Inspection and inquiry made.

154	15th March, 6-30 P.M.	Kutchidhara mine, Ramakona P. O., Central Provinces.	Indian Manganese Co., Ltd	Gunga Telin, (f.), 35, Labourer.	Manga- nese ore	Deceased stayed behind in a quarry after the warning for blasting had been given. She was struck by a piece of stone weighing 21 lb., which was thrown out of a trial pit, 6 feet in diameter and 21 feet deep, in the bottom of the quarry. This pit was 120 feet below and 240 feet distant horizontally from her position at the time. She died six hours after the accident. Inspection and inquiry made.
155	4th April, 1 P.M.	Kargali mine, Bokaro P. O., Bihar and Orissa,	Great Indian Penin- sula Railway.	Gurunath Biraiya, (m.) 35, Shot-firer. Some, (m.), 25, Labourer.	Coal	The deceased were burnt by an explosion of compressed gunpowder in a quarry. They died three days later. Inspection and inquiry made.
156	9th April, 6-15 P.M.	Gumgaon mine, Khapa P. O., Central Provinces.	Central Provinces Manganese Ore Co., Ltd.	Kisan, (m.), 19, Labourer.	Manga- nese ore	Deceased was struck in the head and killed instantly by stone projected by blasting operating in an open excavation.
157	15th April, 3 A.M.	Kustore North mine, Kusunda P. O., Bihar and Orissa.	Raneesunge Coal Association, Ltd.	Debi Charan Dosedh, (m.) 30, Shot-firer. Budhan Dosedh, (m.), 35, Driller.	Coal	Whilst at work underground, the deceased were fatally burnt by the accidental ignition of gunpowder cartridges. Inspection and inquiry made.
158	18th May 5 P.M.	Ramapuram mine, Morrison P. O., Madras.	North Anantapur Gold Mines, Ltd.	Hindupur Sidiab, (m.) 30, Labourer.	Gold	Deceased and another person were employed in drilling holes in a winze. They drilled in the socket of an old hole and caused the explosion of the residue of a previous charge. Deceased were fatally injured and the other man was seriously injured. Inspection and inquiry made.
159	5th July, 1-50 P.M.	Bararee mine Jamadoba P. O., Bihar and Orissa.	East Indian Coal Co., Ltd.	Lekho Meah, (m.), 27, Shot-firer; Sahabai Meah, (m.), 30, Piro Meah, (m.), 25, Drillers; Biswanath Halocai, (m.), 30, Contractor's Overseer.	Coal	The deceased were sitting in an underground gallery when an accidental ignition of compressed gunpowder took place. They sustained burns which subsequently caused death. Inspection and inquiry made.
160	11th July, 12-30 P.M.	Raiganj mine, Raiganj P. O., Bengal.	Bengal Coal Co., Ltd.	Gooui, (f.), 18, Coal-carrier.	Coal	Deceased and a shot-firer returned to a shot-hole which was presumed to have misfired. The shot exploded and deceased sustained injuries to which she succumbed eleven days later. The shot-firer was seriously injured. Inspection and inquiry made.

APPENDIX II—contd.

List of Fatal Accidents, 1924—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remark.
BY EXPLOSIVES (20 deaths)—contd.						
161	25th September, 12-30 P.M.	Alkusa North mine, Kusunda P. O., Bihar and Orissa.	Raneogunge Coal Association, Ltd.	Budhan Bakta, (m.), 30, Coal-cutter.	Coal	Deceased was carrying to the mine an open tin containing gunpowder when the powder became ignited by a spark from his lamp or cigarette. He sustained severe burns, and died three days later. Inspection and inquiry made.
162	12th November, 1-30 P.M.	Thorwa mine, Kodarma P. O., Bihar and Orissa.	Tata Sons, Ltd.	Lalu Gope, (m.), 50, Miner.	Mica	In an underground stope a charge of high explosive misfired. Whilst deceased was attempting to withdraw the charge it exploded, fatally injuring him. Inspection and inquiry made.
163	20th December, 7-30 A.M.	Niohitpur mine, Bansjora P. O., Bihar and Orissa.	A. C. Banerjee & Co.	Banta Singh, (m.), 32; Pagar Singh, (m.), 30, Sinkers.	Coal	In a sinking shaft the undetonated residue of a charge of dynamite which remained in the socket of a shothole was exploded by a blow from a pick. The deceased were killed. Inspection and inquiry made.
164	22nd December, 6-30 A.M.	Bararee mine, Jamadoba P. O., Bihar and Orissa.	East Indian Coal Co., Ltd.	Ram Singh, (m.), 33; Kola Singh, (m.), 26, Stone-cutters; Badri Singh, (m.), 24, Driller.	Coal	Whilst drilling close to an unsuspected misfired shot in a sinking shaft; an explosion of gelignite occurred, killing two of the deceased and injuring two others, one of whom subsequently died. Inspection and inquiry made.
HAULAGE—(20 deaths).						
165	19th January, 3 A.M.	Loyabad mine, Bansjora P. O., Bihar and Orissa.	Burrakur Coal Co., Ltd.	Ashraf Chamar, (m.), 38, Trolleyman.	Coal	Deceased was ascending an incline when he was struck by a train of tubs which had run wild. He died without regaining consciousness. Inspection and inquiry made.
166	23rd January, 3-30 P.M.	Anhakuty mine, Katrasgarh P. O., Bihar and Orissa.	Royal Coal Co., Ltd.	Bhiklal Lalla, (m.), 40, Labourer.	Coal	Deceased was crossing an underground haulage road when he was struck by two empty tubs which had run wild. He was severely injured and died soon afterwards. Inspection and inquiry made.

167	9th February, 7-30 A.M.	Searssole mine, Baniganj P. O., Bengal.	Searssole Coal Co., Ld.	Rajim Rout, (f.), 16, Coal-carrier.	Coal	Deceased was walking up an incline whilst an empty train of tubs was being lowered. The tube became derailed, and deceased, instead of entering a manhole, stood on the side of the road and was struck by the tubs. She died two hours later. Inspection and inquiry made.
168	22nd February, 4 P.M.	Bawdwin mine, Namtu P. O., Burma.	Burma Corporation, Ld.	Madhichand, (m.), 28, Trammer.	Lead- silver.	Deceased, contrary to orders, was riding between the loaded trucks of a train on an underground road. Whilst the train was passing a stationary train he tried to pass out from between the loaded trucks, but was crushed between the two passing trains. He sustained injuries to which he succumbed shortly afterwards. Inspection and inquiry made.
169	29th February, 1 P.M.	Noonodih mine, Jamadoba P. O., Bihar and Orissa.	Bengal Iron Co., Ld.	Bhulas, (m.), 55, Coal-cutter.	Coal	Whilst a train of eight empty tubs was being lowered down a slope of 1 in 7 a drawbar broke and four of the tubs ran wild and overturned at the bottom of the incline, 120 feet below. Deceased was run over and sustained fatal injuries. Another man was seriously injured. Inspection and inquiry made.
170	2nd April, 11 A.M.	Khost mine, Khost P. O., Baluchistan.	North Western Railway.	Sardara, (m.), 28, Coal-cutter.	Coal	Owing to a missed coupling some of the tubs in a train in which men were permitted to ride ran wild from the top of a steep haulage slope. Deceased, who was sitting in one of the tubs, was killed.
171	28th April, 9 A.M.	Khowra mine, Khowra P. O., Punjab.	Government of India.	Lall, (m.), 32, Haulage atten- dant.	Salt	Deceased was coupling the tubs of a train of loaded tubs standing in an underground siding when a train of empty tubs was being pushed into the siding by a locomotive. The front tub derailed, and deceased was crushed between it and the loaded tubs. He sustained injuries to the leg which proved fatal. Inspection and inquiry made.
172	29th May, 2-30 P.M.	Ena mine, Jharra P. O., Bihar and Orissa.	North West Coal Co., Ld.	Sambhu Gorai, (m.), 14, Coal-cutter.	Coal	Deceased, whilst standing on a haulage road, was struck by a train of tubs which ran wild owing to the haulage rope breaking. He was fatally injured. Inspection and inquiry made.
173	12th June, 2 P. M.	Gopalichuck West mine, Kusunda P. O., Bihar and Orissa.	Gopalichuck Coal Co., Ld.	Bandhu Belder, (m.), 35, Labourer.	Coal	Deceased was run over and killed by tubs which, owing to the breaking of a coupling link, ran uncontrolled down a haulage incline. Inspection and inquiry made.
174	13th June, 6-30 P. M.	West Totturiya mine, Katrasgarh P. O., Bihar and Orissa.	West Totturiya Collieries, Ld.	Baran Chamer (m.), 26, Labourer.	Coal	Deceased, whilst crossing a dip haulage road, was struck by a train of six tubs which had run wild owing to the breaking of a coupling. Inspection and inquiry made.

APPENDIX II—contd.

Fatal Accidents, 1921—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
HAULAGE—(20 deaths)—contd.						
175	1st July, 10-30 A.M.	Sijua mine, Sijua P. O., Bihar and Orissa.	Tata Iron and Steel Co., Ltd.	Purui Kamin, (f.), 48, Coal-carrier.	Coal	Whilst walking on a haulage road deceased was struck and fatally injured by a moving tub. Inspection and inquiry made.
176	2nd July, 8-30 A.M.	Barkui mine, Parasia P. O., Central Provinces.	Pench Valley Coal Co., Ltd.	Mulwa Kole, (m.), 20, Tramman.	Coal	In disobedience of standing orders deceased was riding on the front tub of a train of six loaded tubs. The tub derailed and he fell off and was run over. His injuries proved fatal. Inspection and inquiry made.
177	17th July, 2 P.M.	Bhalgora mine, Jharua P. O., Bihar and Orissa.	Bhalgora Coal Co., Ltd.	Bondhu Bhuiya, (m.), 33, Trolleyman.	Coal	Whilst a train of 22 empty tubs was being lowered down an incline a coupling came off and five of the tubs ran wild. Deceased was run over and fatally injured. Inspection and inquiry made.
178	29th July, 4-30 P.M.	Lodna mine, Jharua P. O., Bihar and Orissa.	Lodna Colliery Co., (1920) Ltd.	Faltn Mesh, (m.), 45, Line Mistry.	Coal	Whilst deceased was proceeding down a haulage incline the haulage of a loaded train was commenced. Owing to the derailment of a tub the haulage rope slipped off some turn pulleys and struck deceased, fracturing his leg. He died from septicaemia fifteen days later. Inspection and inquiry made.
179	23rd September, 11 A.M.	Burriah Khad mine, Kusunda P. O., Bihar and Orissa.	Kosoonda and Nyadee Collieries, Ltd.	Rupai Muchi, (m.), 15, Pumpman.	Coal	Deceased attempted to jump on a train of tubs in motion. He fell between two tubs and sustained injuries which proved fatal. Inspection and inquiry made.
180	24th September, 5 P.M.	Joyramdanga and Baraboui mines, Asansol P. O., Bengal.	New Beerbhoom Coal Co., Ltd.	Jasoda Korani, (f.), 23, Labourer.	Coal	Deceased was run over and fatally injured by a train of tubs. She appears to have entered the mine without a lamp and in a semi-intoxicated condition. Inspection and inquiry made.
181	8th October, 11-45 A.M.	Newton mine, Parasia P. O., Central Provinces.	Leonard Newton and others.	Kunoo Thakur, (m.), 40, Coal-cutter.	Coal	The haulage rope on an inclined haulage road broke, releasing a train of tubs. Deceased, who was employed on the road, was run over and sustained injuries which subsequently proved fatal.

182	17th October, 10 P.M.	Samla mine, Pandaveswar P. O., Bengal.	Samla and Kendra Collieries, Ltd.	Khedon Bauri, (m.), 50, Trammer.	Coal	Deceased was one of four persons engaged in pushing a train of six loaded tubs on a level road. He was crushed between the tubs and a narrow portion of the roadway and sustained injuries to which he succumbed on the following day. Inspection and inquiry made.
183	26th November, 1 P.M.	Balaghat mine, Bharweli P. O., Central Provinces.	Central Provinces Manganese Ore Co., Ltd.	Chaitoo Lodhi, (m.), 16, Miner.	Manga- nese ore.	Deceased, whilst walking into a mine through an adit level, was knocked down by a train of loaded tubs that was being pushed by hand. He received injuries from which he died next day. Inspection and inquiry made.
184	25th December, 9-15 P.M.	Bagdigi mine, Jharia P. O., Bihar and Orissa.	Villiers, Ltd.	Etwari Dosadh, (m.), 23, Trammer.	Coal	Deceased fell in front of a train of loaded tubs and received severe injuries to one of his legs. He died nine days afterwards. Inspection and inquiry made.
BY UNDERGROUND MACHINERY—(2 deaths).						
185	30th April, 12 A.M.	Jitpur mine, Jamadoba P. O., Bihar and Orissa.	Bengal Iron Co., Ltd.	Bengar Sami, (m.), 30, Assistant Ma- chineman.	Coal	Deceased fell on to the revolving bar of a coal-cutting machine and was cut to pieces. Inspection and inquiry made.
186	26th August, 4 A.M.	Hurriladh mine, Jamadoba P. O., Bihar and Orissa.	Equitable Coal Co., Ltd.	Uzairali, (m.), 24, Machineman.	Coal	Deceased was operating a Sullivan Chain Coal-cutter when, owing to the giving way of a stay prop, the machine swung round and struck him. He sustained a fracture of the leg and died two days later. Inspection and inquiry made.
SUNDRIES UNDERGROUND—(15 deaths).						
187	8th January, 3 P.M.	Tirap mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Nawrose Erani, (m.), 45, Trolleyman.	Coal	Deceased, whilst at work underground, was presumed to have had an apoplectic seizure and to have fallen striking his head on a tram line. He sustained a fractured skull and died ten days later. Inspection and inquiry made.
188	1st February, 9 A.M.	Sijua mine, Sijua P. O., Bihar and Orissa.	Tata Iron and Steel Co., Ltd.	Lekha Gowala, (m.), 38, Trolleyman.	Coal	Whilst deceased was pushing tipping tub, the tub derailed and its body overturned. Deceased sustained injuries to which he succumbed three days later. Inspection and inquiry made.
189	13th February, 2-15 P.M.	Kodalgaon mine, Khapra P. O., Central Provinces.	Indian Manganese Co., Ltd.	Shikhandarkhan, (m.), 35, Miner.	Manga- nese ore	Deceased was standing on a ledge, 3½ feet wide, and was barring down a piece of rock. The bar slipped and he overbalanced and fell from the ledge to the bottom of the quarry, a distance of 16 feet. He died five days later. Inspection and inquiry made.

APPENDIX II—contd.

Fatal Accidents, 1924—contd.

Serial number	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
SUNDRIES UNDERGROUND—(15 deaths)—contd.						
190	21st March, 8-30 A.M.	Bawdwin mine, Namtu P. O., Burma.	Burma Corporation Ltd.	Law Lee, (m.), 45, Miner.	Lead- silver.	Deceased was one of a gang engaged in extracting ore in a stopes. He was standing on a platform when it collapsed, owing to the supports not having been properly secured. He fell a distance of 60 feet and sustained injuries to which he succumbed two hours later. Inspection and inquiry made.
191	28th March, 1 P.M.	Kutehidhana mine, Bamakona P. O., Central Provinces.	Indian Manganese Co., Ltd.	Ohota Pinjara, (m.), 30, Labourer.	Manga- nese ore.	A coolie was breaking stones on the 70 foot level in a quarry and a piece of stone rolled over the edge and fell to the 100 foot level where deceased was working. As deceased was running to get clear of the falling stone he fell and knocked his head against a rock with such violence that he sustained injuries from which he died eight days later. Inspection and inquiry made.
192	8th May, 11-30 A.M.	Buraree mine, Jsmadoba P. O., Bihar and Orissa.	East Indian Coal Co., Ltd.	Larowa Rohidas, (m.), 40, Coal-cutter.	Coal	Deceased, whilst loading coal in a gallery, was struck by a piece of coal, 18" x 15" x 10", which rolled from the top of a heap. He received fatal injuries. Inspection and inquiry made.
193	17th May, 9-30 A.M.	Tirap mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Malgovinda Gowala, (m.), 40, Coal-cutter.	Coal	Whilst a workman was barring down overburden in a quarry, he slipped and fell a distance of 22 feet. The crowbar which he held struck deceased on the neck, causing injuries which proved fatal twelve hours later. Inspection and inquiry made.
194	1st August, 2 A.M.	Bawdwin mine, Namtu P. O., Burma.	Burma Corporation Ltd.	Hari Prasad, (m.), 28, Tramner.	Lead- silver.	Deceased was pulling at a loaded tram whilst walking backwards, when he was crushed between the tub and an ore chute. He sustained injuries to which he succumbed nine days later. Inspection and inquiry made.
195	12th August, 8-30 P.M.	Tikak mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ltd.	Dhanbir Lama, (m.), 28, Labourer.	Coal	Whilst deceased was at work in an 'opening' or "chamber" some coal fell. In attempting to avoid the falling coal he ran into a steel drill which had been left projecting from a shot-hole. He received injuries from which he died four hours later. Inspection and inquiry made.

196	21st September, 12 A.M.	Goshalpur mine, Goshalpur P. O., Central Provinces.	Seth Gowardhan Dass.	Yasin Khan, (m.), 40, <i>Labourer.</i>	Manga- nese ore.	Whilst engaged in cutting overburden on the side of an open excavation deceased overbalanced and fell to the bottom of the excavation. He was killed instantly.
197	1st December, 9-30 A.M.	Tikak mine, Margherita P. O., Assam.	Assam Railways and Trading Co., Ld.	Dnja Dhanook, (m.), 20, <i>Shoveller.</i>	Coal	Deceased was one of a gang of men employed in shovelling coal down a steep gallery. The coal began to slide, and deceased was carried down with it and buried. When his body was recovered life was extinct. Inspection and inquiry made.
198	1st December, 8-15 P.M.	Bawdwin mine, Namtu P. O., Burma.	Burma Corporation Ld.	Lee Yen, (m.), 40, <i>Miner.</i>	Lead- silver.	Deceased was standing on a platform and engaged in timbering a slope when he overbalanced and fell a distance of 15 feet. He sustained injuries to which he succumbed four hours later. Inspection and inquiry made.
199	3rd December, 1 P.M.	Bawdwin mine, Namtu P. O., Burma.	Burma Corporation Ld.	Chow Fo, (m.), 35, <i>Miner.</i>	Lead- silver.	Deceased was standing on a temporary platform and engaged in repairing a chute. A portion of the platform gave way causing him to fall a short distance. He fell on a projecting nail and sustained fatal injuries.
200	20th December, 11-40 P.M.	Kurkund mine, Kusunda P. O., Bihar and Orissa.	Marine Coal Co., Ld.	Lakhu Gope, (m.), 33, <i>Trolleyman.</i>	Coal	Deceased was assisting in the re-railing one of the tubs of a train of tubs on a haulage plane, and was injured by a prop which was being used for the purpose of re-railment. He died three days later. Inspection and inquiry made.
201	31st December, 7-30 A.M.	Katras mine, Katrasgarh P. O., Bihar and Orissa.	Burrakur Coal Co., Ld.	Amrita Patwa, (m.), 35, <i>Pumpman.</i>	Coal	Deceased and a companion went into an overman's cabin underground, made a fire there and, closing the door of the cabin, lay down and fell asleep. Both men were rendered unconscious by the fumes from the fire but one recovered. Inspection and inquiry made.

BY SURFACE MACHINERY—(5 deaths).

202	13th January, 2-30 P.M.	Mohpani mine, Mohpani P. O., Central Provinces.	Great Indian Penin- sula Railway.	Sukhya Gond, (m.), 18, <i>Labourer.</i>	Coal	Whilst a C. I. pipe was being lowered down a shaft by means of a hand winch, deceased was standing at a place 6 feet behind the operator. As the speed increased one of the winch handles broke at the bend, flew past the operator and struck deceased on the forehead so severely that he died within a few hours. Inspection and inquiry made.
203	1st March, 6 A.M.	Jamadoba mine, Jamadoba P. O., Bihar and Orissa.	Tata Iron and Steel Co., Ld.	Yearali, (m.), 20, <i>Motor oiler.</i>	Coal	Deceased was passing the inlet of a small fan in a colliery workshop when a loose cloth in which he was clad was drawn into the inlet of the fan and twisted round the shaft. He was thrown violently to the ground and killed instantly. Inspection and inquiry made.
204	29th Ma. 6 A.M.	Serampur mine, Giridih P. O., Bihar and Orissa.	East Indian Rail- way.	Bhowani Dosadh, (m.), 40, <i>Fan attendant.</i>	Coal	Deceased was found dead in the crank-pit of a fan engine. Presumably he had gone inside the fencing for oiling or cleaning purposes. Inspection and inquiry made.

APPENDIX II—contd.

Fatal Accidents, 1924—contd.

Serial Number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
BY SURFACE MACHINERY—(5 deaths)—contd.						
205	26th June, 8-30 A.M.	Bejdih mine, Sunderchak P. O., Bengal.	Equitable Coal Co., Ld.	Gakul Dom, (m.), 14, Labourer.	Coal	Deceased was greasing the return wheel of a surface endless rope haulage when he was caught between the wheel and its supports. He succumbed to his injuries two hours later. Inspection and inquiry made.
206	7th July, 7-30 A.M.	Sankerpur mine, Ukhra P. O., Bengal.	Burn & Co. Ld.	Lalji Mudi, (m.), 42, Trammer.	Coal	Deceased was about to lower a loading shoot into a wagon by means of a rope the movement of which was regulated by a handle on a drum. The drum was secured by a pawl and ratchet. Deceased lifted the pawl and released the drum but failed to hold the handle at the same time. The handle whirled round and struck him on the leg. He sustained injuries which caused death nine days later. Inspection and inquiry made.
SURFACE BOILERS AND PIPES BURSTING—(3 deaths).						
207	7th March, 3 P.M.	Ghusiok mine, Kalipahari P. O., Bengal.	Baliram & Co.	Ara Ali, (m.), 22, Pumpman; Monor Ali, (m.), 30, Boiler fireman.	Coal	One of the deceased allowed the water level in a vertical boiler to fall too low and the boiler exploded. Both he and another man were severely scalded and subsequently died. Inspection and inquiry made.
208	24th April, 8 A.M.	Hurriladih mine, Jharis P. O., Bihar and Orissa.	Equitable Coal Co., Ld.	Sumar Pashi, (m.), 27, Labourer.	Coal	Whilst deceased was removing ashes from underneath a water tube boiler, one of the tubes burst and he was scalded so severely that he died. Inspection and inquiry made.
ON SURFACE RAILWAYS AND TRAMWAYS BELONGING TO THE MINE—(10 deaths).						
209	19th January, 10-30 A.M.	Bhājipani mine, Penoh P. O., Central Provinces.	Penoh River Co., Ld.	Coal Mallal Ahir, (m.), 18, Trammer.	Coal	Deceased tried to cross in front of two loaded tubs which were slowly moving along a level tramway. He fell down and was run over, sustaining fatal injuries. Inspection and inquiry made.

210	22nd February, 4 P.M.	Shivrajpur mine, Shivrajpur P. O., Bombay.	Shivrajpur Syndi- cate Ld.	Bhimappa Timappa, (m.), 10, <i>Selecting boy.</i>	Manga- nese ore.	During hand tramping operations deceased was run over by a moving tub, and sustained injuries which proved fatal.
211	9th March, 6 A.M.	Serampur mine, Giridih P. O., Bihar and Orissa.	East Indian Rail- way.	Kodia Chamin, (f.), 17, <i>Coal-carrier.</i>	Coal	In attempting to cross a railway siding deceased was crushed between wagons which were being moved by hand. Her injuries proved fatal. Inspection and inquiry made.
212	13th March, 2 P.M.	Katras mine, Katrasgath P. O., Bihar and Orissa.	Burrakur Coal Co., Ld.	Jharoo Turi, (m.), 20, <i>Banksman.</i>	Coal	Deceased, whilst opening a stopblock on a surface tramline, was struck by a train of seven loaded tubs, which he had himself previously set in motion. He was killed instantly. Inspection and inquiry made.
213	22nd March, 12 A.M.	Karapur mine Suramangalem P. O. Madras.	Magnesite Syndicate Ld.	Parmayee, (f.), 50, <i>Cleaner.</i>	Magnesite	Deceased attempted to cross a tramline in front of a moving wagon. She was knocked down and run over, sustaining injuries from which she died a few hours later. Inspection and inquiry made.
214	7th May, 5 P.M.	Shivrajpur mine, Shivrajpur P. O., Bombay.	Shivrajpur Syndi- cate, Ld.	Lingappa Basappa, (m.), 40, <i>Labourer.</i>	Manga- nese ore.	Deceased attempted to cross a self-acting incline in a quarry whilst the tubs were in motion. He was run over and sustained injuries which subsequently proved fatal.
215	30th May, 6-30 A.M.	Janardeo mine, Jamsi P. O., Central Provinces.	Rai Sahib H. Verma and Munshi Kanhaiyalal, Ld.	Lalla, (m.), 20, <i>Trammer.</i>	Coal	Deceased was crushed between the tub which he was controlling and another loaded tub which ran uncontrolled for 1,400 feet down a gradient of 1 in 50 on a surface tramline. Inspection and inquiry made.
216	18th July 5 P.M.	Bhurkunda mine, Rangach P. O., Bihar and Orissa.	Government of India (Railway Department).	Ramdin, (m.), 53, <i>Labourer</i>	Coal	Whilst deceased was riding on a wagon the latter derailed. He was thrown against the wagon supports and sustained internal injuries which caused death on the following day.
217	2nd November, 8 P.M.	Lakurka mine, Katrasgath P. O., Bihar and Orissa.	Lakurka Coal Co., Ld.	Jari Bhura, (m.), 20, <i>Trammer.</i>	Coal	Deceased was employed on a surface tramline. He was crushed between a tub which he was pushing and a second tub which was being pushed by another man. He sustained injuries to the spine and died on the following day. Inspection and inquiry made.
218	23rd November, 9 A.M.	Napur mine, Baniganj P. O., Bengal.	Napur Coal Co., Ld.	Feku Kurmi, (m.), 21, <i>Banksman.</i>	Coal	Deceased attempted to jump on to a colliery locomotive while it was in motion. He was crushed between the locomotive and a building sustaining injuries which proved fatal. Inspection and inquiry made.
BY ELECTRICITY—(5 deaths).						
219	11th January, 7 P.M.	Bawdwin mine, Nanttu P. O., Burma.	Burma Corporation Ld.	Low Leo, (m.), 38, <i>Trammer.</i>	Lead- silver.	Deceased caught hold of the cables of a 220 volt alternating current lighting circuit. The cable insulation was defective and he was electrocuted. Inspection and inquiry made.

APPENDIX I—*contd.*

Fatal Accidents, 1924—*contd.*

Serial number	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Cause of accident and remarks.
BY ELECTRICITY—(5 deaths)—<i>contd.</i>						
220	18th March, 9-15 P.M.	Bawdwin mine, Namtu P. O., Burma.	Burma Corporation Ltd.	Fu Ohain Kyan, (m.), 28, <i>Trammer.</i>	Lead- silver.	Deceased picked up the 'live' end of a broken cable on a 220 volt alternating current lighting circuit. He was electrocuted. Inspection and inquiry made.
221	19th April, 10 A.M.	Central Kurkond mine, Kusunda P. O., Bihar and Orissa.	Central Kurkond Coal Co., Ltd.	Surju Katri, (m.), 25, <i>Cartier.</i>	Coal	With the object of obtaining a bird's nest, deceased climbed a post carrying electric transmission wires. He received a slight shock from a live conductor and fell to the ground from a height of 15 feet, sustaining an injury to the spine which caused death four days later. Inspection and inquiry made.
222	25th August, 6-30 P.M.	Bawdwin mine, Namtu P. O., Burma.	Burma Corporation Ltd.	Hsiao San, (m.), 21, <i>Trammer.</i>	Lead- silver.	Deceased was passing between a tram and a pipe enclosing the three cables of a 220 volt lighting system when he touched the pipe and was electrocuted. Inspection and inquiry made.
223	21st November, 1-45 P.M.	Bawdwin mine, Namtu P. O., Burma.	Burma Corporation Ltd.	Chandra Bahan, (m.), 35, <i>Labourer.</i>	Lead- silver.	Whilst deceased was carrying a crowbar on his shoulder the crowbar fouled an electric cable on a 220 volt alternating current lighting circuit. The insulation being defective, deceased was electrocuted. Inspection and inquiry made.
MISCELLANEOUS ON SURFACE—(11 deaths).						
224	2nd February, 12-15 P.M.	Jamadoba mine, Jamadoba P. O., Bihar and Orissa.	Tata Iron & Steel Co., Ltd.	Abdul Kheer, (m.), 25, <i>Labourer.</i>	Coal	Deceased, whilst at work at the top of a standard on a electric transmission line, slipped and fell to the ground—a height of 84 feet. He sustained fatal injuries. Inspection and inquiry made.
225	26th March, 7-45 A.M.	Kustore South mine, Kusunda P. O., Bihar and Orissa.	Raneegunge Coal Association, Ltd.	Gopal Makhan, (m.), 20, <i>Rivetter.</i>	Coal	Deceased ventured on to a projecting bamboo forming part of a scaffold in a head gear in course of erection. The bamboo broke and deceased fell a distance of about 70 feet and was killed instantly. Inspection and inquiry made.

226	14th May, 8-30 A.M.	West Jambad mine, Chora P. O., Bengal.	West Jambad Colliery, Ld.	Bijoy Dhwagar, (m.), 28, Trolleyman.	Coal	A winding rope became slack, slipped over the drum flange, and became twisted on the drum shaft. The rope was then clamped in the head gear to support the cage. Deceased was trying to straighten the rope, when it slipped through the clamps and tightened on the drum. He was thrown a distance of 45 feet and sustained injuries which caused death within a few hours. Inspection and inquiry made.
227	7th June, 10-40 A.M.	Bawdwin mine, Namtu P. O., Burma.	Burma Corporation Ld.	U. Lan, (m.), 40, Contractor's carpenter.	Lead- silver.	Deceased was holding a piece of timber, 8' x 5' x 4' long, which was being cut by a circular saw, when the timber jerked from his hold and struck him on the chest. He sustained injuries to which he succumbed shortly afterwards. Inspection and inquiry made.
228	7th July, 6-45 A.M.	Dishergarh (East) mine, Dishergarh P. O., Bengal.	Equitable Coal Co., Ld.	Sambhu Bauri, (m.), 18, Labourer.	Coal	Owing to a collapse of underground workings, a surface subsidence occurred causing a line of cooly huts to collapse. Deceased, who was inside one of the huts, was killed instantly. Inspection and inquiry made.
229	21st July, 6 A.M.	Khoet mine, Khoet P. O. Baluchistan.	North Western Railway.	Gulaba, (m.), 35, Machineman.	Coal	Deceased took a light near the press cylinder in a briquetting factory, and caused an ignition of coal dust. He received severe burns and died on the following day.
230	28th July, 8-30 P.M.	Jamai mine, Parasia P. O. Central Provinces.	E. S. Mathura Proshad Motilal and Co.	Firmoo Mehra, (m.), 20, Coal-cutter.	Coal	During the hours of darkness deceased fell over a fence and into a disused incline cutting, 31 feet deep. He was killed instantly. Inspection and inquiry made.
231	23rd September, 11-30 A.M.	Charanpur mine, Charanpur P. O. Bengal.	Burrakur Coal Co. Ld.	Muhammad Isack, (m.), 32, Building contractor; Mili Baurin, (f.), 17, Labourer.	Coal	The walls of a building, in the course of erection, collapsed and the deceased were struck by the falling roof and buried in the debris. Seven other persons were injured. Inspection and inquiry made.
232	9th November, 7-30 A.M.	Kendwadih mine, Kusunda P. O. Bihar and Orissa.	East Indian Coal Co., Ld.	Suren Singh, (m.), 40 Labourer.	Coal	Whilst a gang of coolies was removing a throttle valve from a haulage engine by means of a pulley block suspended from the roof beam of the engine house, the roof collapsed. Deceased was crushed between the roof and a steam pipe, sustaining spinal injuries from which he died five weeks later. Inspection and inquiry made.
233	16th November, 11-30 A.M.	Bhuggatdih (North Section) mine, Jharia P. O. Bihar and Orissa.	Bengal Nagpur Coal Co., Ld.	Prayag Mudi, (m.), 28, Labourer.	Coal	Deceased, whilst demolishing a portion of the arching at the mouth of an incline preparatory to effecting repairs, was struck on the back by some bricks which fell from the top of the arching—a height of 7 feet. He was fatally injured. Inspection and inquiry made.

APPENDIX II—contd.

Fatal Accidents, 1924—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Reason for exclusion.	Cause of accident and remarks.
DEATHS NOT INCLUDED IN THE STATISTICS (33 Deaths).							
1	28th January, 11 A.M.	Munsar mine, Kandri P. O. Central Provinces.	Central Provinces, Prospecting Syndicate, Ltd.	Samagas, (m.), 1.	Manganese.	Not employed.	A boy was carrying a boulder of manganese weighing 35 lbs. up an incline leading from an open excavation. He slipped and dropped the boulder and the latter rolled into the excavation and struck deceased on the head causing fatal injuries. Inspection and inquiry made.
2	9th February, 1-30 A.M.	Bankola mine, Ukhra P. O. Bengal.	Burrakur Coal Co., Ltd.	1. Ojir Sheik, (m.), 34, 2. Sujat Ali, (m.), 35, 3. Udo Sheik, (m.), 34, 4. Dost Mahommed, (m.), 30, Gunpowder makers.	Coal	Not a mining accident.	Whilst a number of persons were sleeping in a block of huts in a part of which gunpowder was being manufactured, the powder was ignited and an explosion demolished the building. Four persons were killed and three injured by the falling debris; three other persons were severely burnt by the flames. Inspection and inquiry made.
3	23rd March, 10 P.M.	Lakurka mine, Katrasgarh P. O., Bihar and Orissa.	Lakurka Coal Co., Ltd.	Dharm Singh, (m.), 35, Siuo Singh, (m.), 40, Gharool, (m.), 42, Dhanoo, (m.), 35, Coal-cutters.	Coal	Not a mining accident.	One of the deceased took a bag of gunpowder into a hut. Whilst they were sitting in the hut the powder became ignited and they were burnt so severely that all of them died within twenty-one hours. Inspection and inquiry made.
	31st March, 2-30 P.M.	Tikak mine, Margherita P. O. Assam.	Assam Railways and Trading Co., Ltd.	Unknown, (m.), 30, Fakir.	Coal	Not employed.	Deceased attempted to cross a surface self-acting incline. He was run over and killed. Inspection and inquiry made.

5	4th April, 10-30 A.M.	New Tetturya mine, Katragarh P. O., Bihar and Orissa.	New Tetturya Coal Co., Ld.	Joy Karan, (m.), 22, Ram Frosad, (m.), 32, Coal-cutters. Jodhi Bilaspuri, (m.), 38, Sirdar.	Coal	Not a mining accident	The deceased were sitting in a miner's dwelling when a spark ignited some gunpowder which they had brought from the mine. They were seriously burnt and eventually succumbed to their injuries. Inspection and inquiry made.
6	14th April, 11-30 A.M.	Charanpur mine, Charanpur P.O., Bengal.	Apear Collieries, Ld.	Tugan Kowat, (m.), 28, Coal-cutter.	Coal	Not a mining accident.	Deceased, with his wife and child, was burnt by an ignition of gunpowder cartridges in his hut. He died a day later. Inspection and inquiry made.
7	28th May, 1 P.M.	Tetulmuri mine, Sijua P. O., Bihar and Orissa.	Burrakur Coal Co., Ld.	Lakhia Bhuiyan, (f.), 10.	Coal	Not em- ployed.	Deceased was run over and killed on an endless haulage road. Inspection and inquiry made.
8	7th June, 5 P.M.	Burra-Golai, Margherita P.O., Assam.	Assam Railways and Trading Co., Ld.	Chee Keow, (m.), 28, Coal-cutter.	Coal	Not a mining accident.	Whilst drawing water from a well under construction deceased fell in and was drowned. Inspection and inquiry made.
9	11th June, 11 P.M.	Saltore mine, Disergarh P.O., Bihar and Orissa.	Burrakur Coal Co., Ld.	Raghu Manjhi (m.), 43, Coal-cutter.	Coal	Not a mining accident.	Deceased, after a long walk to the colliery in the heat of the day, was found dead near his working place underground. Death was ascribed to heat apoplexy. Inspection and inquiry made.
10	18th June, 8-15 A.M.	Angarpathra mine, Katragarh P.O. Bihar and Orissa.	National Coal Co., Ld.	Jhingon Singh (m.), 50, Raising con- tractor.	Coal	Not a mining accident.	A mineral train got out of control and, after being derailed by the "trip-point" at the entrance to a railway siding, knocked down part of the wall of a loading wharf on which deceased was sitting. He fell under the wheels of the train and was killed instantly. Inspection and inquiry made.
11	22nd June, 9-30 A.M.	West Albion mine, Nawagarh, P. O., Bihar and Orissa.	West Albion Coal Co., Ld.	Ghasini Dhoibin, (f.), 8.	Coal	Not em- ployed.	Whilst deceased was riding on a train of loaded tubs on the surface, she fell off and was fatally injured. Inspection and inquiry made.
12	1st July, 2 P.M.	Ramnagar mine, Pandaveswar P. O., Bengal.	Sania Ramnagar Collieries, Ld.	Jamuna Dhan- gar, (f.), 6.	...	Not em- ployed.	Deceased was standing on the buffer of a loaded tub in a railway cutting. When the tub was set in motion she fell and sustained injuries which proved fatal. Inspection and inquiry made.
13	7th July, 8 P.M.	Kargali mine, Bokaro P. O., Bihar and Orissa.	Great Indian Penin- sula Railway.	Sakur Mahato, (m.), 25, Coal-cutter.	Coal	Not a mining accident.	During a storm, deceased and other miners took shelter in a hut roofed with corrugated iron. He was struck by lightning and killed instantly.
14	26th July, 12 o'clock & 1 P.M.	Taungzon mine, Taungzon P. O., Burma.	Oaman Mustikhan & Co.	Ah Aung, (f.), 1, daugh- ter of a churoot- maker.	Stone	Not em- ployed.	Whilst sitting in the verandah of a dwelling house, deceased was struck on the head by a stone projected by blasting operations in an adjacent quarry.

APPENDIX II—*contd.*

Fatal Accidents, 1924—*conold.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral wrought.	Reason for exclusion.	Cause of accident and remarks.
DEATHS NOT INCLUDED IN THE STATISTICS (38 deaths)— <i>contd.</i>							
15	29th July, 9 A.M.	Lodna mine, Jharia F. O., Bihar and Orissa.	Lodna Colliery Co., (1920), Ld.	Piyara Chamar, (m.), 41, Coal-cutter.	Coal	Not a mining accident.	Deceased took a canister containing gunpowder cartridges to his house. The gunpowder became ignited, and he was slightly burnt. He died of tetanus two days later. Inspection and inquiry made.
16	2nd August, 1 P.M.	Sijua mine, Sijua P. O., Bihar and Orissa.	Tata Iron & Steel Co., Ld.	Balia Majhian, (f.) 30, Coal-carrier.	Coal	Not a mining accident.	Deceased was said to have thrown herself into a shaft, 64 feet deep, and to have been killed instantly. The shaft was surrounded by a wall 4 feet high. Inspection and inquiry made.
17	8th August, 9 A.M.	Bhalgora mine, Jharia F. O., Bihar and Orissa.	Bhalgora Coal Co., Ld.	Pancham Teli, (m.), 40, Coal-cutter, Ramdui Teli, (m.), 14 Not employed.	Coal	Not a mining accident.	Country gunpowder, which was being dried in a tin over a coal fire, became ignited and two men and a child were burnt severely. The deceased subsequently succumbed to their injuries. Inspection and inquiry made.
18	8th August, 9-15 A.M.	Bhalgora mine, Jharia F. O., Bihar and Orissa.	Bhalgora Coal Co., Ld.	Dhara Dhaunk, (m.), 25, Coal-cutter.	Coal	Not a mining accident.	Deceased was drying gunpowder on a tin plate over a fire when the powder became ignited and he sustained severe burns which proved fatal. Inspection and inquiry made.
19	10th August, 7 A.M.	Showra mine, Jamadoba F. O., Bihar and Orissa.	Eastern Coal Co., Ld.	Jhala, (m.), 12.	Coal	Not employed.	With the object of obtaining a bird's nest deceased climbed a post carrying 220 volt electric lighting wires. He came into contact with a live conductor and was electrocuted. Inspection and inquiry made.
20	24th September, 4 A.M.	Serampur mine, Giridih F. O., Bihar and Orissa.	East Indian Railway.	Salon Shaikh, (m.), 42, Labourer.	Coal	Not a mining accident.	Deceased was knocked down and killed by a locomotive in a colliery siding. Inspection and inquiry made.
21	9th November, 4 P.M.	Angarpatra mine, Katrasgarh F. O., Bihar and Orissa.	Union Coal Co., Ld.	Parawa Bhu- yan, (f.), 13, Labourer.	Coal	Not a mining accident.	Deceased was crossing a railway siding when a train of wagons was being shunted. She was knocked down by the wagons, and sustained fatal injury. Inspection and inquiry made.

23	20th November, 8 A.M.	Kurhbari mine, Giridih P. O., Bihar and Orissa.	East Indian Rail- way.	Dasso Bhuiya, (m.), 30.	Coal	Not em- ployed.	Deceased went under a hopper wagon, presumably to steal brass fittings. He must have accidentally opened the bottom door, allowing the coal dust with which the wagon was loaded, to fall out. He was buried and died from suffocation. Inspection and inquiry made.
23	13th Decem- ber, 3 P.M.	Makerwal mine, Trag P. O., Punjab.	Kapur Ishar Dass and O. B. Bevan- Petman.	Janan, (m.), 16, <i>Labourer.</i>	Coal	Not a mining accident.	Deceased was going from the mine to his home and, instead of taking the proper path, went by a short precipitous path. His foot slipped and he fell down the cliff—a distance of 200 feet. He was killed instantly. Inspection and inquiry made.
24	19th Decem- ber, 9 A.M. & 5 P.M.	Seraampur mine, Giridih P. O., Bihar and Orissa.	East Indian Rail- way.	Sona Chamar, (m.), 25, <i>Coal-cutter.</i>	Coal	Not a mining accident.	Deceased was found drowned in a water-logged incline. Inspection and inquiry made.

APPENDIX II—contd.

Table No. 2.

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, during the year 1924.

PROVINCE.	District and mineral field.	Total average number of persons employed daily.	FATAL ACCIDENTS			SERIOUS ACCIDENTS.			DEATH-RATE PER 1,000 PERSONS EMPLOYED.				
			Number of separate fatal accidents.	NUMBER OF DEATHS.		Number of serious non-fatal accidents.	NUMBER OF PERSONS SERIOUSLY INJURED.		Below ground.	Above ground.	Below and above ground.		
				Below ground.	Above ground.		Total deaths.	Below ground.				Above ground.	Total number of persons injured.
ASSAM	Lakhimpur Naga Hills Sibsagar	3,630	7	8	...	8	54	42	12	54	4.11	...	2.20
		834	1	2	...	2	1	..	1	1	4.26	...	2.40
	
	TOTAL	4,464	8	10	...	10	55	42	13	55	4.14	...	2.24
Baluchistan	Loralai Quetta, Pishin Sibi, Khoet	62	...	...	...	...	...	...	...	...	...	...	...
		101	...	...	...	...	...	...	...	...	...	...	...
		748	8	10	1	11	4	5	...	5	23.53	8.10	14.71
	TOTAL	911	8	10	1	11	4	5	...	5	19.03	2.58	12.07
Bengal	Bankura, Raniganj Birbhum Burdwan	224	...	...	...	...	...	...	...	...	...	...	...
		109	1	1	...	1	...	...	...	...	19.23	...	9.17
		48,288	48	44	9	53	48	31	18	49	1.57	0.59	1.23
	TOTAL	48,621	47	45	9	54	48	31	18	49	1.60	0.58	1.24

APPENDIX II—contd.

Table No. 2.

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, during the year 1924.

PROVINCE.	District and mineral field.	Total average number of persons employed daily.	FATAL ACCIDENTS.			SERIOUS ACCIDENTS.			DEATH-RATE PER 1,000 PERSONS EMPLOYED.						
			Number of separate fatal accidents.	NUMBER OF DEATHS.		Number of serious non-fatal accidents.	NUMBER OF PERSONS SERIOUSLY INJURED.		Below ground.	Above ground.	Below and above ground.				
				Below ground.	Above ground.		Total deaths.	Below ground.				Above ground.	Total number of persons injured.		
Bihar and Orissa.	Hassari-bagh.	Bokaro	19,506	3	4	...	4	19	3	14	22	0.31	...	0.20	
		Giridih	7,687	6	5	2	7	23	20	3	23	0.35	1.12	0.91	
		Jharia	1,865	1	2	...	2	2.59	...	1.07
		Ramgach	764	3	2	1	3	2	1	1	2	15.62	1.57	3.83	
	Manbhum.	Jharia	86,739	98	114	10	124	111	87	29	116	2.13	0.29	1.43	
		Baniganj	8,798	3	3	...	3	4	2	2	4	0.59	...	0.34	
	Palamanu, Daltonganj	430	...	...	...	...	...	...	...	...	...	...	...	...
	Sambalpur, Hingir-Bampur	486	1	1	...	1	1	1	...	1	2.92	...	2.06		
	Sonthal Parganas, Jaijy	796	...	...	...	...	1	1	...	1	...	...	...
	Sonthal Parganas, Baniganj	1,139	...	...	...	...	...	...	...	...	...	...	...
TOTAL	123,210	115	131	13	144	161	120	49	169	1.66	0.26	1.12			
Burma	Mergui	23	...	...	...	...	...	...	...	...	...	...
Central Provinces.	Betul	177	...	...	...	...	...	...	...	...	...	...
	Chanda, Ballarpur	1,755	...	...	...	...	2	2	...	2	...	...	
	Chindwara, Fench Valley	4,771	6	3	3	6	13	8	5	13	1.03	1.62	1.26		
	Narsinghpur, Mohpaul	1,338	2	1	1	2	2	2	...	2	1.15	1.59	1.43		
	Yectmal	159	...	...	...	...	...	...	...	...	...	...
Hoshangabad	24	...	...	...	...	...	...	...	...	...	...
TOTAL	8,284	8	4	4	8	17	12	5	17	0.31	1.21	0.97			

APPENDIX II—*contd.*Table No. 2—*contd.*

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, during the year 1924—*contd.*

PROVINCE.	District and mineral field.	Total average number persons employed daily.	FATAL ACCIDENTS.			SERIOUS ACCIDENTS.			DEATH-RATE PER 1,000 PERSONS EMPLOYED.				
			Number of separate fatal accidents.	NUMBER OF DEATHS.		Number of serious non-fatal accidents.	NUMBER OF PERSONS SERIOUSLY INJURED.		Below ground.	Above ground.	Below and above ground.		
				Below ground.	Above ground.		Total deaths.	Below ground.				Above ground.	Total number of persons injured.
COAL—<i>contd.</i>													
Punjab .	Jhelum	1,376	2	2	...	2	3	4	...	4	2.31	...	1.57
	Mianwall	150	...	...	...	...	...	...	...	...	...	...	...
	Shahpur	149	1	1	...	1	...	...	...	...	18.33	...	6.71
	TOTAL	1,575	3	3	...	3	3	4	...	4	3.01	...	1.90
	GRAND TOTAL (COAL)	187,088	189	203	27	230	288	214	85	299	1.75	0.38	1.23
IRON ORE.													
Bihar and Orissa.	Singhbhum	3,135	2	2	...	2	7	...	7	7	1.46	...	0.64
Burma .	Mandalay	127	...	...	...	...	...	...	...	...	...	...	...
	Northern States. Shan	774	1	2	...	2	1	...	1	1	6.13	...	2.58
	TOTAL	901	1	2	...	2	1	...	1	1	6.13	...	2.22
Central Provinces.	Chanda	717	...	...	...	...	...	...	...	...	...	...	...
	GRAND TOTAL (IRON ORE)	4,753	3	4	...	4	8	...	8	8	2.07	...	0.84

APPENDIX II—contd.

Table No. 2—contd.

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, during the year 1924—contd.

PROVINCE.	District and mineral field.	of Total average number persons employed daily.	FATAL ACCI- DENTS.			SERIOUS ACCI- DENTS.			DEATH-RATE PER 1,000 PERSONS EMPLOYED.				
			Number of separate fatal accidents.	NUMBER OF DEATHS.		Number of serious non- fatal accidents.	NUMBER OF PERSONS SERIOUSLY INJURED.		Below ground.	Above ground.	Below and above ground.		
				Below ground.	Above ground.		Total deaths.	Below ground.				Above ground.	Total number of persons injured.
MANGANESE ORE.													
Bombay	Panch Mahals	2,679	2	...	2	2	14	1	13	14	...	3.45	0.75
Bihar and Orissa.	Singhbhum	45	...	...	...	...	...	...	...	...	...	...	...
Central Pro- vinces.	Balaghat	9,650	4	5	...	5	1	...	1	1	0.64	...	0.52
	Bhandara	3,010	...	...	...	...	1	...	1	1	...	...	...
	Chhindwara	1,311	2	2	...	2	...	...	...	...	1.92	...	1.53
	Jubbulpore	214	1	1	...	1	...	...	...	...	5.88	...	4.67
	Nagpur	6,378	3	3	...	3	4	1	3	4	0.60	...	0.47
	TOTAL	20,563	10	11	...	11	6	1	5	6	0.67	...	0.53
Madras	Ballary	334	...	...	...	...	...	...	...	...	...	...	...
	Kurnool	29	...	...	...	...	...	...	...	...	...	...	...
	Vizagapatam	1,438	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	1,801	...	...	...	...	...	...	...	...	...	...	...
	GRAND TOTAL (MANGANESE ORE).	25,088	12	11	2	13	20	2	13	20	0.54	0.41	0.52

APPENDIX II—*contd.*Table No. 2—*contd.*

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, during the year 1924—*contd.*

PROVINCE.	District and mineral field.	Total average number of persons employed daily.	FATAL ACCIDENTS.				SERIOUS ACCIDENTS.				DEATH-RATE PER 1,000 PERSONS EMPLOYED.				
			Number of separate fatal accidents.	NUMBER OF DEATHS.			Number of serious non-fatal accidents.	NUMBER OF PERSONS SERIOUSLY INJURED.			Below ground.	Above ground.	Below and above ground.		
				Below ground.	Above ground.	Total deaths.		Below ground.	Above ground.	Total number of persons injured.					
LEAD ORE.															
Burma	Northern States.	Shan	3,268	13	14	1	15	64	57	8	65	5.89	1.12	4.59	
	Southern States.	Shan	289	...	...	...	...	2	2	...	2	...	...	...
	GRAND TOTAL (LEAD ORE)		3,557	13	14	1	15	66	59	8	67	5.49	0.99	4.22	
WOLFRAM AND TIN ORE.															
Burma	Mergui		527	1	1	...	1	...	...	...	...	2.33	...	1.90
	Tavoy		2,753	4	4	...	4	3	2	1	3	2.22	...	1.45	
	Thaton		19	...	...	...	...	...	...	...	...	...	...	...
	GRAND TOTAL (WOLFRAM AND TIN ORE).		3,299	5	5	...	5	3	2	1	3	2.22	...	1.52	
GOLD.															
Madras	Anantapur		253	2	3	...	3	3	3	..	3	29.70	...	11.86	
	TOTAL (GOLD)		253	2	3	...	3	3	3	...	3	29.70	...	11.86	

APPENDIX II—contd.

Table No. 2—contd.

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, during the year 1924—contd.

PROVINCE.	District and mineral field.	Total average number of persons employed daily.	FATAL ACCIDENTS.			SERIOUS ACCIDENTS.			DEATH-RATE PER 1,000 PERSONS EMPLOYED.				
			Number of separate fatal accidents	NUMBER OF DEATHS.		Number of serious non-fatal accidents.	NUMBER OF PERSONS SERIOUSLY INJURED.		Below ground.	Above ground.	Below and above ground.		
				Below ground.	Above ground.		Total deaths.	Below ground.				Above ground.	Total number of persons injured.
CHROMITE ORE.													
Baluchistan	Zhob	446	...	...	...	...	1	1	...	1	...	...	...
	Quetta Fishin	25	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	471	...	...	...	...	1	1	...	1	...	...	...
Bihar and Orissa.	Singhbhum	246	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL (CHROMITE ORE).		717	...	...	...	...	1	1	...	1	...	...	...

COPPER ORE.

Bihar and Orissa.	Singhbhum	695	1	1	...	1	2	2	...	2	4.17	...	1.44
Burma	Southern Shan States.	31	...	...	...	...	...	...	...	...	...	...	...
Central Provinces.	Balaghat	31	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL (COPPER ORE).		757	1	1	...	1	2	2	...	2	3.30	...	1.32

GEMS.

Burma	Katha (Rubies, etc.)	1,417	1	...	1	1
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APPENDIX II—*contd.*Table No. 2—*contd.*Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, during the year 1924—*contd.*

PROVINCE.	District and mineral field.	Total average number of persons employed daily.	FATAL ACCIDENTS			SERIOUS ACCIDENTS.				DEATH-RATE PER 1,000 PERSONS EMPLOYED.		
			Number of separate fatal accidents.	NUMBER OF DEATHS.		Number of serious non-fatal accidents.	NUMBER OF PERSONS SERIOUSLY INJURED.			Below ground.	Above ground.	Below and above ground.
				Below ground.	Above ground.		Total deaths.	Below ground.	Above ground.				Total number of persons injured.
MICA.												
Bihar and Orissa.	Bhagalpur . . .	91	...	...	...	...	...	...	...	...	...	...
	Gaya . . .	1,518	...	...	...	1	...	1	1	...	...	...
	Hazaribagh . . .	9,274	5	6	...	6	1	2	...	2	0.98	0.65
	Monghyr . . .	404	...	...	...	...	...	...	...	...	...	...
	Sambalpur . . .	168	...	...	...	...	...	...	...	...	...	...
	Manbhum . . .	6	...	...	...	...	...	...	...	...	...	...
	TOTAL . . .	11,456	5	6	...	6	2	2	1	3	0.76	0.52
Madras . . .	Nellore . . .	3,858	...	...	...	...	1	1	...	1	...	...
	Nilgiris . . .	231	...	...	...	...	...	...	...	...	...	...
	TOTAL . . .	3,589	...	...	...	...	1	1	...	1	...	...
Rajputana . . .	Ajmer-Merwara . . .	268	...	...	...	...	...	...	...	...	...
	GRAND TOTAL (Mica).	15,818	5	6	...	6	3	3	1	4	0.58	0.39

APPENDIX II—*contd.*Table No. 2—*contd.*Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, during the year 1924—*contd.*

PROVINCE.	District and mineral field.	Total average number of persons employed daily.	FATAL ACCIDENTS.			SERIOUS ACCIDENTS.			DEATH-RATE PER 1,000 PERSONS EMPLOYED.		
			Number of separate fatal accidents.	NUMBER OF DEATHS.		Number of serious non-fatal accidents.	NUMBER OF PERSONS SERIOUSLY INJURED.		Below ground.	Above ground.	Below and above ground.
				Below ground.	Above ground.		Total deaths.	Below ground.				Above ground.	Total number of persons injured.

STONE—*contd.*

Burma .	Tavoy . . . . .	...	...	...	...	...	...	...	...	...	...	...
	Bassien	60	...	...	...	...	...	...	...	...	...	...
	Thaton	1,024	1	2	...	2	1	2	...	2	3.20	...	1.95
	TOTAL	1,084	1	2	...	2	1	2	...	2	3.09	...	1.95
GRAND TOTAL (STONE).		1,352	1	2	...	2	1	2	...	2	2.71	...	1.48

SALT.

Punjab .	Jhelum	695	1	1	...	1	5	3	2	5	1.44	...	1.44
	Mianwali	36	...	...	...	...	...	...	...	...	...	...	...
	Shahpur	129	...	...	...	...	2	1	2	2	...	...	...
	GRAND TOTAL (SALT).	860	1	1	...	1	8	4	4	9	1.20	...	1.18

SLATE.

Bihar and Orissa.	Monghyr	323	...	...	...	...	1	1	...	1	...	...	...
Punjab .	Gurdaspur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
	Gurgaon	210	...	...	...	...	...	...	...	...	...	...	...
	Kangra	467	...	...	...	...	...	...	...	...	...	...	...
	TOTAL	677	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL (SLATE).		999	...	...	...	...	1	1	...	1	...	...	...

APPENDIX II—*contd.*Table No. 2—*concl'd.*Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, during the year 1924—*concl'd.*

PROVINCE.	District and mineral field.	Total average number of persons employed daily.	FATAL ACCIDENTS.			SERIOUS ACCIDENTS.			DEATH-RATE PER 1,000 PERSONS EMPLOYED.				
			Number of separate fatal accidents.	NUMBER OF DEATHS.		Number of serious non-fatal accidents.	NUMBER OF PERSONS SERIOUSLY INJURED.		Below ground.	Above ground.	Below and above ground.		
				Below ground.	Above ground.		Total deaths.	Below ground.				Above ground.	Total number of persons injured.
ASBESTOS.													
Central Provinces.	Bhandara .. .	12	..	..	..	..	..	..	..	..	..
Madræs . .	Cuddapah . . .	74	..	..	..	..	..	..	..	..	..
	GRAND TOTAL (ASBESTOS).	86	..	..	..	..	..	..	..	..	..
OCHRE.													
Bihar and Orissa.	Puri	42	..	..	..	..	..	..	..	..	..
CORUNDUM.													
Central Provinces.	Bhandara . . .	15	..	..	..	..	..	..	..	..	..
	GRAND TOTAL (ALL MINES).	258,217	233	250	31	281	410	294	180	424	1.49	0.84	1.09

APPENDIX II—*conold.*

Table No. 3.

Statement of fatal accidents in mines regulated by the Indian Mines Act, during the year 1924, classified according to cause of accident.

Mineral worked.	Number of separate fatal accidents.	NUMBER OF PERSONS KILLED.											DEATH-RATE PER 1,000 PERSONS EMPLOYED.			
		Explosions of fire-damp.	Falls of roof.	Falls of side.	In shafts.	Suffocation by gases.	By explosives.	Eruptions of water.	Haslage.	Miscellaneous below ground.	Surface.	Electricity.	Total deaths.	Below ground.	Above ground.	Below and above ground.
Coal . . .	189	2	86	44	27	...	18	...	17	10	25	1	290	1.75	0.88	1.23
Copper . . .	1	...	...	...	...	...	1	...	...	...	...	...	1	3.39	...	1.32
Gold . . .	2	...	...	...	...	...	3	...	...	...	...	...	3	29.70	...	11.86
Iron Ore . . .	3	...	...	3	...	...	1	...	...	...	...	...	4	2.07	...	0.84
Lead Ore . . .	13	...	...	1	4	...	...	...	1	4	1	4	15	5.49	0.99	4.22
Magnesite . . .	1	...	...	...	...	...	...	...	...	...	1	...	1	...	4.17	0.50
Manganese Ore.	12	...	...	5	...	...	2	...	1	3	2	...	13	0.54	0.41	0.52
Mica . . .	5	...	1	4	...	...	1	...	...	...	...	...	6	0.58	...	0.39
Salt . . .	1	...	...	...	...	...	...	...	1	...	...	...	1	1.20	...	1.16
Stone . . .	1	...	...	2	...	...	...	...	...	...	...	...	2	2.71	...	1.46
Tin Ore	5	...	...	5	...	...	...	...	...	...	...	...	5	2.22	...	1.52
Wolfram Ore																
TOTAL, 1924 . . .	233	2	87	64	31	...	26	...	20	17	29	5	281	1.49	0.84	1.09
TOTAL, PRECEDING YEAR.	237	75	92	101	32	12	11	...	29	13	3	19	387	2.47	0.30	1.65
DIFFERENCE . . .	-4	-73	-5	-37	-1	-12	+15	...	-9	+4	+26	-14	-106	-0.98	+0.04	-0.56

APPENDIX III.

Statement of prosecutions under the Indian Mines Act, and Indian Penal Code, during the year 1924.

Province.	District.	Number of prosecutions.	Number of persons prosecuted.	Number convicted.	Numbers of rules and sections of the Act contravened.	REMARKS.
Assam .	Lakhimpur	1	3	3	Section 21, Special Rules 5, 6, and 9.	
	Do.	3	3	3	Section 21, Special Rule 64.	
	Do.	1	1	1	Section 19 (F), Arms Act.	
	Burdwan	2	2	2	Section 20, General Rule 3 of Notification No. 864-68-20, dated 10th March 1904. .	
	Do.	1	2	2	Section 22 (3) (c), General Rules 3 and 4 (b) and Special Rules 27 and 41.	
Bengal .	Do.	1	1	1	Section (22) (2) (b), General Rule 12 of Government of India Notification No. 864-68-20, dated 10th March 1904.	
	Do.	5	5	3	Section 20, General Rule 1 of Notification No. 11703-108, dated 30th December 1906, as amended by Notification No. 5072-113, dated 1st July 1916, and No. M-493, dated 29th June 1922.	Cases against two accused were withdrawn.
	Do.	1	2	1	Section 21, Special Rules 5 and 7.	Proceedings against the other accused stayed.
	Do.	1	1	1	Section 21, Special Rule 6.	
	Do.	1	1	1	Section 21 and Section 267, Indian Penal Code.	
Bihar and Orissa.	Gya	1	1	1	Section 16.	
	Do.	1	1	1	Section 20, General Rule 1 of Notification No. 11703-108, dated 30th December 1906, as amended by Notification No. M-493, dated 29th June 1922.	

APPENDIX III—*contd.*

Statement of prosecutions under the Indian Mines Act, and Indian Penal Code, during the year 1924—*contd.*

Province.	District.	Number of prosecutions.	Number of persons prosecuted.	Number convicted.	Numbers of rules and sections of the Act contravened.	REMARKS.
Bihar and Orissa.	Hazaribagh	7	8	6	Section 20, General Rule 1 of Notification No. 11733-103, dated 30th December 1908, as amended by Notification No. M-498, dated 29th June 1922.	Two cases were withdrawn.
	Do.	1	3	2	Section 20, General Rules 6 (a), 17 and 18.	Case against one accused was withdrawn.
	Do.	1	1	1	Section 15 of Indian Mines Act, 1923.	
	Manbhum	1	5	5	Section 22 (3) (e), General Rule 1 (a).	
	Do.	1	1	1	Section 20, General Rule 3.	
	Do.	1	4	4	Section 20, General Rules 4, 7 and 19.	
	Do.	1	3	1	Section 22 (3) (e), General Rule 8.	Two accused were acquitted.
	Do.	5	6	4	Section 20, General Rule 12 of Notification No. 864-68-20, dated 10th March 1904.	One accused was acquitted, and the case against the other was withdrawn as he could not be extradited for taking his residence in an Indian State.
	Do.	1	1	1	Section 15 of Indian Mines Act, 1923, read with General Rule 47, made under section 20 of the Indian Mines Act, 1901.	
	Do.	2	2	1	Section 20, General Rule 19.	One accused v acquitted.

APPENDIX III—*contd.*

Statement of Prosecutions under the Indian Mines Act, and Indian Penal Code, during the year 1924—*contd.*

Province.	District.	Number of prosecutions.	Number of persons prosecuted.	Number convicted.	Number of rules and sections of the Act contravened.	REMARKS.
Bihar and Orissa.	Manbhum . . .	1	2	2	Section 22 (3) (e), General Rule 47, Government of India Notification No. 2968-82, dated 21st April 1906, as amended by Notification No. M-1-11, dated 20th October 1920.	
	Do.	1	2	1	Section 22 (1) (e), General Rule 13 (b) and Special Rule 5.	One accused was acquitted.
	Do.	1	2	...	Section 21, Special Rule 5 and Section 287, Indian Penal Code.	The accused were acquitted.
	Do.	1	1	1	Section 21, Special Rule 6.	
	Do.	1	2	2	Section 21, Special Rule 80, 82 and 83.	
	Do.	1	1	1	Section 35 (e) of the Indian Mines Act, 1923.	
	Do.	8	12	10	Section 20, General Rule 1 of Notification No. 11793-103, dated 30th December 1908, as amended by Notification No. M-498, dated 29th June 1922.	Two cases were withdrawn.
Burma	Monghyr	2	2	2	Do. do. do.	
	Singbhum	1	1	1	Section 304-A, Indian Penal Code.	
	Mergui	1	1	1	Section 20, General Rule 1 of Notification No. 11703-103, dated 30th December 1908, as amended by Notification No. M-498, dated 29th June 1922.	
	Tavoy	1	1	...	Do. do. do.	Case withdrawn.
	Thatan	1	1	1	Section 236, Indian Penal Code.	

APPENDIX III—*concl'd.*

Statement of prosecutions under the Indian Mines Act, and Indian Penal Code, during the year 1924—*concl'd.*

Province.	District.	Number of prosecutions.	Number of persons prosecuted.	Number convicted.	Number of rules and sections of the Act contravened.	REMARKS.
Central Provinces.	Balaghat . . .	1	1	1	Section 20, General Rule 8.	
	Do.	1	2	...	Section 20, General Rules 18 and 19.	The accused were acquitted on appeal.
	Ghanda	1	1	...	Section 20, General Rules 8 and 9.	Case withdrawn.
	Chhindwara . .	1	2	...	Section 20, General Rule 9 read with Sections 16 (1) and 39 of the Indian Mines Act, 1923.	The accused were acquitted.
	Do.	1	2	1	Section 20, General Rule 19.	One of the accused was acquitted.
	Do.	1	2	1	Section 21, Special Rule 34.	One accused could not be traced.
	Jubbulpore . .	1	1	1	Section 20, General Rule 1 of Notification No. 11703-103, dated 30th December 1908, as amended by Notification No. M-498, dated 29th June 1922.	
Rajputana . . .	Ajmer-Merwara.	1	1	...	Do. do. do.	Accused was acquitted.

APPENDIX IV.

MISCELLANEOUS.

Statement No. 1.

List of Inspection Circles.

No. 1 Circle.	No. 2 Circle.
1. All mines in Beluchistan.	1. All mines in Assam.
2. All mines in Bihar and Orissa except mines in the district of the Sonthal Parganas and such mines in the district of Manbhum as lie east of a line drawn from mile 175 on the Bengal Nagpur Railway to mile 169 on the Grand Trunk Road and continued in a straight line across the district.	2. All mines in Bengal.
3. All mines in the North-West Frontier Province.	3. Such mines in Bihar and Orissa as lie in the district of the Sonthal Parganas and in the district of Manbhum east of a line drawn from mile 175 on the Bengal Nagpur Railway to mile 169 on the Grand Trunk Road and continued in a straight line across the district.
4. All mines in the Punjab.	4. All mines in Bombay.
5. All mines in Rajputana.	5. All mines in Burma.
	6. All mines in the Central Provinces.
	7. All mines in Madras.

Statement No. 2.

Names of persons to whom first and second class certificates to manage a coal mine were granted during the year 1924.

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

FIRST CLASS.

NAME.	No. of Indian certificate.	Date of Indian certificate.	No of English certificate.	Date of English certificate.
Aldis, Gerald	305	13th February 1924 .	1173	12th August 1922.
Gregory, Thomas	308	Do.	726	22nd January 1920.
Inman, William St. John	307	Do.	251	26th January 1916.
Anderson, Esau Frothero	308	9th April 1924	863	12th February 1921.
Morgan, Leonard	309	Do.	1078	30th January 1922.
Robertson, Thomas	310	Do.	1255	3rd February 1923.
McCrae, James	311	2nd May 1924	472	24th January 1918.
Reynolds, Herbert James Blackmore.	312	Do.	1193	12th August 1922.

APPENDIX IV—*contd.*Miscellaneous—*contd.*Statement No. 2—*contd.*

Names of persons to whom first and second class certificates to manage a coal mine were granted during the year 1924—*contd.*

(b) Certificates of competency.

FIRST CLASS.

Name.	No. of certificate.	Date of certificate.	REMARKS.
Roy, Debi Prasanna	167	9th April 1924	
Ramsay, Robert Brakine	168	Ditto	
Roy Choudhury, Sanil Krishna	169	Ditto	
Cornish, Charles Philip	170	Ditto	
Shome, Makhan Lall	171	Ditto	
Walker, Clarence James	172	Ditto	
Chatterjee, Kalipada	173	Ditto	
Davies, John William	174	Ditto	
Franss, Donald Joseph Bruce	175	Ditto	
Ghosh, Siba Mohan	176	Ditto	

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

SECOND CLASS.

Name.	No. of Indian certificate.	Date of Indian certificate.	No. of English certificate.	Date of English certificate.
		<i>Nil.</i>		

APPENDIX IV—*contd.*Miscellaneous—*contd.*Statement No. 2—*concl'd.*

Names of persons to whom first and second class certificates to manage a coal mine were granted during the year 1924—*concl'd.*

(b) Certificates of competency.

SECOND CLASS.

Name.	No. of certificate.	Date of certificate.	REMARKS.
Sarkar, Dharendra Nath	340	2nd May 1924	
Mullick, Surendra Nath	341	Ditto	
Mitra, Gokul Chandra	342	Ditto	
Mitra, Kali Charan	343	Ditto	
Mukherjee, Nalini Mohan	344	Ditto	
Mozumdar, Jamini Mohan	345	Ditto	
Roy Chondhury, Dhanindra Nath	346	Ditto	
Roy, Heramba Kumar	347	Ditto	
Sarkar, Prafulla Kumar	348	Ditto	
Mukherjee, Lakshmi Kinkar	349	Ditto	
Bhattacharjee, Sati Bhusan	350	Ditto	
Dutt, Prafulla Kumar	351	Ditto	
Roy, Sasti Pada	352	Ditto	
Gupta, Pramoda Chandra	353	Ditto	
Nath, Chandra Kumar	354	Ditto	
Banerjee, Sudhansu Mohan	355	Ditto	
Bhaduri, Susil Kumar	356	Ditto	
Gupta, Shishir Kumar	357	Ditto	
Hollow, Augustus Vivian	358	Ditto	
Sarkar, Bidhu Bhusan	359	Ditto	
Sen, Dwije Pada	360	Ditto	
Ghosh, Nagendra Nath	361	Ditto	
Mozumdar, Pranaya Bhusan	362	Ditto	
Banerjee, Sudhir Kumar	363	Ditto	
Dickinson, Reginald William	364	Ditto	
Das, Brajendra Nath	365	Ditto	
Mukherjee, Biraj Mohan	366	Ditto	
Ganguly, Shanti Ram	367	Ditto	
Nath, Protap Chandra	368	Ditto	

APPENDIX IV—*contd.*Miscellaneous—*contd.*

Statement No. 3.

GOVERNMENT OF INDIA.

DEPARTMENT OF INDUSTRIES AND LABOUR.

Simla the 26th July 1924.

NOTIFICATION.

No. M-1051.—In exercise of the powers conferred by sub-section (1) of section 46 of the Indian Mines Act, 1923 (IV of 1923), the Governor-General in Council is pleased to exempt the mines, groups of mines, classes of mines and parts of mines specified in the first column of the annexed Schedule from the operation of such provisions of the said Act as are specified in the corresponding entry in the second column thereof.

Schedule.

1. Mines of *kankar*, *murum*, laterite, gravel, sand, clay, fire-clay, kaolin (china clay), stone, earth, fuller's earth, bauxite, slate and limestone.

All.

Provided that the depth of the excavation measured from the level of the adjacent ground nowhere exceeds 20 feet and that not more than 50 persons are employed at any one time in or about the mine:

Provided further that this exemption shall not apply to—

- (a) china clay quarries in the Delhi Province,
- (b) slate mines in the Province of the Punjab,
- (c) slate mines in the Monghyr District of the Province of Bihar and Orissa,
- (d) limestone mines in the Shahabad District of the Province of Bihar and Orissa.

- (e) the following mines in the Central Provinces, namely—
 - (i) Clay pit No. 1 in the pottery works of Messrs. Burn & Co., in the Jubbulpore District.
 - (ii) Clay pits Nos. 1, 2, 3 and 4 in the pottery works of the Perfect Pottery Co., at Polipathar in the Jubbulpore District.
 - (iii) Clay pit No. 1 in the pottery works of the Perfect Pottery Co., at Garha in the Jubbulpore District.
 - (iv) Tikuri china clay, No. 1 mine, in the works of the Katni Cement and Industrial Co., at Tikuri in the Jubbulpore District.
 - (v) Limestone quarries at Katni in the Jubbulpore District.

2. Borings and oil wells . . . All.

3. Mines or parts of mines in which excavation is being carried out for prospecting purposes only and not for the purpose of obtaining minerals for use or sale: All.

Provided that—

- (i) not more than 20 persons are employed in or about such excavation;
- (ii) no part of the excavation extends beneath the superjacent ground; and
- (iii) the depth of the excavation measured from the level of the adjacent ground nowhere exceeds 20 feet or, in the case of an excavation for coal, 50 feet.

4. The following mines in the North-West Frontier Province, namely :—	All.	6. The following mines in the province of Bihar and Orissa, namely :—	All.
(i) Salt mines in the Kohat District.	All.	(i) The coke factory of the Burrakar Coal Co., Ltd., at Loyabad in the Manbhum District.	All.
5. The following mines in the province of Burma, namely :—	The provisions contained in sections 23 and 28.	(ii) The coke factory of the Barari Coke Co., Ltd., at Kendwadih in the Manbhum District.	All.
(i) Native ruby mines in the Katha District.	All.	(iii) The coke factory of the Eastern Coal Co., Ltd., at Bhowra in the Manbhum District.	All.
(ii) All mines in the Federated Shan States.	All.	(iv) The coke factory of the Lodna Colliery Co., Ltd., at Lodna in the Manbhum District.	All.
(iii) The ore-dressing plant of the Burma Corporation, Ltd. at Namtu, Northern Shan States.	All.	(v) The coke factory of the East Indian Railway Co., at Giridih in the Hazaribagh District.	All.
(iv) Separating plant of Quah Chen Guan in Tavoy town in the Tavoy District.	All.		
(v) Separating plant of Messrs. The High Speed Steel Alloys in Tavoy town in the Tavoy District.			

A. H. LEY,

Secretary to the Government of India.

A copy is forwarded to all local Governments and Administrations for information, with the remark that a further communication, explanatory of the notification, will follow.

A copy is also forwarded to the Chief Inspector of Mines in India; Director, Geological Survey of India; Railway Department (Railway Board);

Department of Education, Health and Lands; General Board of Revenue; Secretary, Indian Mining Association; Secretary, Indian Mining Federation; Honorary Secretary, The Association of Colliery Managers in India, and the Joint Honorary Secretary, Mining and Geological Institute of India, for information.

By order, etc.,

J. P. GANGULI,

Asst. Secy. to the Govt. of India.

APPENDIX IV—*contd.*MISCELLANEOUS—*contd.*

Statement No. 4.

RULES MADE BY THE GOVERNMENT OF BIHAR AND ORISSA.

The 8th September 1924.

No. 2608—VIIM-2-Com.—In exercise of the powers conferred by section 30 of the Indian Mines Act, 1923 (IV of 1923), the Governor in Council is pleased to make the following rules:—

RULES FOR COAL MINES.

CHAPTER I.

SANITARY AND HEALTH PROVISIONS.

1. At every mine a sufficient supply of wholesome drinking water shall be provided on the surface and, if the Local Government so directs in the case of any mine or class of mines, also below ground at points reasonably accessible to the persons employed.
2. At every mine arrangements shall be made for keeping all the underground working places and travelling roads clean from *excreta*.
3. If the Local Government so directs, latrine and urinal accommodation shall be provided in the case of any mine or class of mines, either on the surface only or both on the surface and in the underground workings of the mine, and, in the case of latrines, the accommodation shall not be less than one seat for every 50 employees.
4. Every latrine erected on the surface for the use of the work-people of a mine shall be so partitioned off as to secure privacy and, if a latrine intended for the use of one sex adjoins a latrine intended for the use of the other sex, the approaches shall be separate.
5. All latrines in or about a mine shall be kept in a sanitary condition.

CHAPTER II.

AMBULANCE, FIRST-AID AND RESCUE WORK.

6. It shall be the duty of the owner, agent and manager of a mine to see that adequate arrangements are made for the training of men in ambulance work.

7. In every mine in which fifty persons or more are employed underground during any period of 24 hours, one or more of the persons employed according to the subjoined scale shall be trained in ambulance work to the standard of St. John's First Aid Certificate:—

Where the number of persons employed underground during any period of 24 hours—

- does not exceed 100, not less than one person,
- exceeds 100 but does not exceed 200, not less than two persons,
- exceeds 200 but does not exceed 300, not less than three persons,
- exceeds 300 but does not exceed 400, not less than four persons,
- exceeds 400 but does not exceed 500, not less than five persons,
- exceeds 500, one person for every completed hundred of persons employed :

Provided that this rule shall not come into force until the 1st day of July 1927.

8. In or at every mine in respect of which section 18 of the Act applies, there shall be provided and kept in good condition and ready for immediate use at a convenient place on the surface and also, if the Chief Inspector by an order in writing so directs in the case of any mine, underground—

- (a) a suitably constructed stretcher or stretchers, and
- (b) a box or boxes containing a sufficient supply of suitable splints and bandages, adhesive plaster, boracic vaseline, cotton wool and tincture of iodine or other suitable antiseptic solution.

CHAPTER III.

REGISTRATION OF WORK-PEOPLE.

9. The register of all persons employed in the mine, of their hours of work, of their days of rest, and of the nature of their respective employments as required by section 28 of the Act shall be maintained in the form shown in Schedule A.

10. For the purpose of section 28 (a) read with section 23 (c) of the Act, all work of persons employed below ground shall be reckoned from the time such persons leave the surface of the mine to the time at which they finally return thereto at the end of the period of employment.

11. The following persons shall be deemed to be persons holding positions of supervision or management or employed in a confidential capacity, within the meaning of section 24 of the Act :—

- (a) assistant managers, under-managers, or overman or any person holding position under the manager equivalent to assistant manager, under-manager or overman ;
- (b) mechanical engineers or engine-wrights or electricians ;
- (c) surveyors ;
- (d) clerks, accountants and time-keepers.

CHAPTER IV.

SAFETY OF SURFACE.

12. If the owner, agent or manager of a mine intends to commence or extend any mining operations under his control at or to any point within 50 yards of any ground on which buildings other than public works in respect of which the Local Government may have issued any general or special order under clause (a) of section 29 of the Act, tanks, reservoirs, rivers, canals or other structures or works are situated, he shall not less than 60 days before commencing to carry out his intention give notice in writing to the Local Government and to the Chief Inspector.

13. If the operations in respect of which notice is given under rule 12 are not commenced within 12 months from the expiry of the period of 60 days therein referred to, the notice shall be held to have expired and the provisions of that rule shall apply as if no such notice had been given.

14. The notice to be given under rule 12 shall specify the position of the workings of the mine in relation to the buildings, tanks, reservoirs, rivers, canals or other structures or works, the manner in which it is proposed to carry out the intended new operations, the limits to which it is proposed to carry the said operations and whether the operations are actually in progress and shall include a plan showing the existing and the intending operations in so far as they affect the structures or works in question.

15. Any place in or about an excavation which is dangerous shall be made safe or shall be kept securely fenced. Should any doubt arise as to whether a place is dangerous or not, the opinion of an Inspector or of the District Magistrate shall be conclusive on the point.

16. Where an excavation, which has been formed as the result of any mining operation, extends within fifty feet of a public road or dwelling house, and persons are likely to be endangered thereby, substantial fencing shall be erected and maintained around the excavation.

17. Where as the result of the mining operations a subsidence of the surface has taken place or is likely to take place, and persons are likely to be endangered thereby, the dangerous area shall be kept fenced on the surface.

CHAPTER V.

ABANDONMENT OF MINES.

18. In the case of any mine which is abandoned or the working of which is discontinued, the owner, agent or manager of the mine shall be bound, before the mine is finally abandoned or immediately after the working thereof has been discontinued, to cause the top or entrance of every shaft and opening into the mine to be fenced by a structure of a permanent character sufficient to prevent persons inadvertently falling into or entering the shafts or openings.

19. When the workings of any mine or part of a mine which are underground on which is situated property vested in His Majesty or any local Authority or any Railway Company as defined in the Indian Railways Act, 1890, are discontinued or abandoned, intimation in writing shall be sent by the owner to the Chief Inspector within 16 days of the date of such discontinuance or abandonment.

RULES FOR MINES OTHER THAN COAL MINES.

CHAPTER I.

SANITARY AND HEALTH PROVISIONS.

1. At every mine a sufficient supply of wholesome drinking water shall be provided on the surface and, if the Local Government so directs in the case of any mine or class of mines, also below ground at points reasonably accessible to the persons employed.
2. At every mine where the Chief Inspector so directs arrangements shall be made for keeping all the underground working places and travelling roads clean from *excreta*.
3. If the Local Government so directs, latrine and urinal accommodation shall be provided in the case of any mine or class of mines, either on the surface only or both on the surface and in the underground workings of the mine, and, in the case of latrines, the accommodation shall not be less than one seat for every 60 employees.
4. Every latrine erected on the surface for the use of the work-people of a mine shall be so partitioned off as to secure privacy, and, if a latrine intended for the use of one sex adjoins a latrine intended for the use of the other sex, the approach shall be separate.
5. All latrines in or about a mine shall be kept in a sanitary condition.

CHAPTER II.

AMBULANCE, AND FIRST-AID WORK.

6. The Chief Inspector of Mines may by order in writing require the owner, agent, and manager of a mine to see that adequate arrangements are made for the training of men in ambulance work.
7. In every mine in which fifty persons or more are employed underground during any period of 24 hours, the Chief Inspector of Mines may by order in writing require that one or more of the persons employed according to the subjoined scale shall be trained in ambulance work to the standard of St. John's First-Aid Certificate:—

Where the number of persons employed underground during any period of 24 hours—

- does not exceed 100 not less than one person,
- exceeds 100, but does not exceed 200, not less than two persons,
- exceeds 200 but does not exceed 300, not less than three persons,
- exceeds 300 but does not exceed 400, not less than four persons,
- exceeds 400 but does not exceed 500, not less than five persons,
- exceeds 500, one person for every completed hundred of persons employed :

Provided that this rule shall not come into force until the 1st day of July 1927.

8. In or at every mine in respect of which section 18 of the Act applies, there shall be provided and kept in good condition and ready for immediate use at a convenient place on the surface, and also, if the Chief Inspector by an order in writing so directs in the case of any mine, underground—
 - (a) a suitably constructed stretcher or stretchers, and
 - (b) a box or boxes containing a sufficient supply of suitable splints and bandages, adhesive plaster, boric vaseline, cotton wool and tincture of iodine or other suitable antiseptic solution.

CHAPTER III.

REGISTRATION OF WORK-PEOPLE.

9. The register of all persons employed in the mine, of their hours of work, of their days of rest, and of the nature of their respective employments as required by section 23 of the Act shall be maintained in the form shown in Schedule A.

10. For the purposes of section 23 (a) read with section 23 (e) of the Act, all work of persons employed below ground shall be reckoned from the time such persons leave the surface of the mine to the time at which they finally return thereto at the end of the period of employment.

11. The following persons shall be deemed to be persons holding positions of supervision or management or employed in a confidential capacity within the meaning of section 24 of the Act :—

- (a) any official in charge of any mine or part of a mine ;
- (b) mechanical engineers or engine-wrights or electricians ;
- (c) surveyors ;
- (d) clerks, accountants and time-keepers.

CHAPTER IV.

SAFETY PROVISIONS.

12. Any place in or about an excavation which is dangerous shall be made safe or shall be kept securely fenced. Should any doubt arise as to whether a place is dangerous or not, the opinion of an Inspector or of the District Magistrate shall be conclusive on the point.

13. Where an excavation, which has been formed as the result of any mining operation, extends within fifty feet of a public road or dwelling house and persons are likely to be endangered thereby, substantial fencing shall be erected and maintained around the excavation.

14. Where as a result of mining operations a subsidence of the surface has taken place or is likely to take place, and persons are likely to be endangered thereby, the dangerous area shall be kept fenced on the surface.

15. In the case of any mine which is abandoned or the working of which is discontinued, the owner, agent or manager shall be bound, before the mine is finally abandoned, or immediately after the working thereof has been discontinued, to cause the top or entrance of every shaft and opening into the mine to be fenced by a structure of a permanent character sufficient to prevent persons inadvertently falling into or entering the shafts or openings.

CHAPTER VI.

MISCELLANEOUS.

17. Sufficient materials and appliances shall be kept in stock for the proper carrying out of all necessary operations in a manner consonant with the provisions of the Act, regulations, rules and bye-laws.

18. No person shall without the consent of the manager take or consume any intoxicating drink or drug while at work in or about a mine, and no person shall enter or may be in or about a mine in a state of intoxication.

19. All plans and books which are required to be kept under the regulations, these rules and the bye-laws and the prescribed abstract of the Indian Mines Act, 1923, and of the regulations, rules and bye-laws applicable to the mine shall be kept at an office or other building as near as conveniently may be to and used in connection with the working of the mine, and shall be produced on the request of the Chief Inspector or an Inspector or any person authorized in that behalf by the Local Government.

20. The originals, or true copies, of all reports, made in conformity with the Act or with the regulations, rules or bye-laws, shall be maintained at the mine for a period of twelve months after having been made.

21. No person shall pull down, injure or deface any abstract of the Indian Mines Act, 1923, or any copy of the regulations, rules or bye-laws made thereunder which is posted up at any mine or any notice posted up in pursuance of the regulations of the mine.

SCHEDULE A.

Register of work persons (section 28 of the Indian Mines Act, 1923).

Name of Mine _____

Name of Owners _____

Week commencing _____

Name.	Age and sex.	Father's name.	Cast or religion.	Nature of work.	DURING THE WEEK ENDING 19 .		
					Number of days worked.	Number of hours worked.	Days of rest enjoyed.
1	2	3	4	5	6	7	8

By order of the Governor in Council,

J. R. DAIN,

Secretary to Government.

APPENDIX IV—*concl'd.*

MISCELLANEOUS—*concl'd.*

STATEMENT No. 4.

Rule made by the Government of Bihar and Orissa.

The 16th January 1925.

No. 120-Com.—In exercise of the powers conferred by section 30 of the Indian Mines Act, 1923 (IV of 1923), the Governor in Council is pleased to make the following rule :—

RULE FOR ALL MINES.

INQUIRY IN THE CASE OF ACCIDENTS.

If a Court of Enquiry appointed under section 21 of the Act finds that the accident was due to any carelessness or negligence on the part of the management, the Court may order the owner, agent or manager of the mine to pay all or any part of the expenses of the enquiry, and the amount so directed to be paid may, on application by the Chief Inspector or an Inspector to a Magistrate having jurisdiction at the place where the mine is situated or where such owner, agent or manager is for the time being resident, be recovered by the distress and sale of any movable property within the limits of the Magistrate's jurisdiction belonging to such owner, agent or manager.

By order of the Governor in Council,

J. R. DAIN,

Secretary to Government.