

Department of Mines, India

-R-2007

REPORT



OF THE

CHIEF INSPECTOR OF MINES IN INDIA

UNDER THE INDIAN MINES ACT (VIII OF 1901)

FOR THE YEAR ENDING

31st December 1921

BY

R. R. SIMPSON, M.Sc.

Chief Inspector of Mines in India



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Table No. 1—contd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1921—contd.

| PROVINCE. | District and mineral field. | Number of mines under the scope of the Act. | NUMBER OF MINES | | NUMBER OF MINES INSPECTED DURING THE YEAR. | | TOTAL OUTPUT. Tons. | AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES. | | | | | | | | Grand total below and above ground. | |
|-------------------------|------------------------------------|---|-----------------------------|---------------------------------|--|------------------------|------------------------|--|----------------|----------------------|---------------------|---------------|----------------|----------------------|---------------------|-------------------------------------|--------|
| | | | Worked by mechanical power. | Not worked by mechanical power. | Number of mines inspected. | Number of inspections. | | BELOW GROUND. | | | | ABOVE GROUND. | | | | | |
| | | | | | | | | Adult males. | Adult females. | Children (under 12). | Total below ground. | Adult males. | Adult females. | Children (under 12). | Total above ground. | | |
| Bihar and Orissa . | Hazaribagh { | Bokaro-Ramgarh | 3 | 3 | ... | 2 | 6 | 929,143 | 3,802 | 3,477 | 23 | 7,302 | 1,815 | 2,180 | 40 | 4,035 | 11,337 |
| | | Giridih . . . | 12 | 4 | 8 | 9 | 17 | 804,135 | 4,776 | 1,590 | 34 | 6,400 | 1,993 | 960 | 68 | 3,021 | 9,421 |
| | | Jharia . . . | 11 | 5 | 6 | 3 | 4 | 180,834 | 468 | 387 | 45 | 900 | 486 | 384 | 74 | 944 | 1,844 |
| | Manbhum { | Jharia . . . | 371 | 189 | 182 | 246 | 486 | 9,878,815 | 27,725 | 21,083 | 526 | 49,334 | 24,142 | 13,830 | 1,832 | 39,854 | 89,188 |
| | | Raniganj . . . | 110 | 19 | 91 | 92 | 121 | 938,198 | 3,482 | 2,427 | 29 | 5,938 | 3,122 | 1,971 | 170 | 5,263 | 11,201 |
| | Palamau, Daltonganj . . . | 1 | 1 | ... | 1 | 2 | 36,500 | 74 | 69 | 24 | 167 | 82 | 39 | ... | 121 | 288 | |
| | Sambalpur, Hingir-Rampur . . . | 3 | 1 | 2 | ... | ... | 77,277 | 279 | 178 | ... | 457 | 175 | 43 | ... | 218 | 675 | |
| | Sonthal Parganas. { | Jainty . . . | 3 | 3 | ... | 2 | 2 | 105,652 | 385 | 258 | ... | 643 | 438 | 167 | ... | 605 | 1,248 |
| | | Raniganj . . . | 8 | 3 | 5 | 1 | 1 | 14,015 | 118 | 95 | ... | 213 | 301 | 201 | 10 | 602 | 815 |
| | TOTAL . . . | 522 | 228 | 294 | 357 | 639 | 12,964,659 | 41,109 | 29,564 | 681 | 71,354 | 32,554 | 19,865 | 2,244 | 54,663 | 126,017 | |
| Burma . . . | Southern Shan States . . . | 2 | 1 | 1 | ... | ... | 300 | 63 | ... | ... | 63 | 184 | 23 | ... | 207 | 270 | |
| Central Provinces . . . | Betul | 2 | ... | 2 | ... | ... | 210 | 20 | 28 | ... | 48 | 16 | 15 | 2 | 33 | 51 | |
| | Chanda, Ballarpur | 7 | 6 | 1 | 6 | 8 | 171,425 | 1,116 | 330 | 28 | 1,474 | 543 | 131 | 34 | 708 | 2,182 | |
| | Chhindwara, Pench Valley | 38 | 8 | 30 | 21 | 39 | 449,311 | 2,922 | 1,988 | 316 | 5,226 | 1,199 | 1,057 | 319 | 2,575 | 7,801 | |
| | Narsinghpur, Mohpani | 1 | 1 | ... | ... | ... | 89,623 | 797 | 466 | ... | 1,263 | 603 | 140 | ... | 743 | 2,006 | |
| | Yestmal | 2 | 1 | 1 | ... | ... | 2,345 | 9 | 6 | ... | 15 | 36 | 31 | ... | 67 | 82 | |
| | TOTAL . . . | 50 | 16 | 34 | 27 | 47 | 712,914 | 4,864 | 2,818 | 344 | 8,026 | 2,397 | 1,374 | 355 | 4,126 | 12,152 | |

| | | | | | | | | | | | | | | | | |
|--------------------------------------|----------------------|-------------|------------|------------|-------------|--------------|-------------------|---------------|---------------|--------------|----------------|---------------|---------------|--------------|---------------|----------------|
| Panjab | Jhelum | 16 | ... | 16 | 7 | 10 | 50,839 | 1,011 | ... | 7 | 1,018 | 584 | ... | 11 | 505 | 1,618 |
| | Mianwali | 1 | ... | 1 | ... | ... | 11,552 | 91 | ... | ... | 91 | 76 | ... | ... | 76 | 167 |
| | Shahpur | 3 | ... | 3 | 1 | 1 | 4,751 | 53 | ... | ... | 53 | 65 | ... | ... | 65 | 118 |
| | TOTAL | 20 | ... | 20 | 8 | 11 | 67,242 | 1,155 | ... | 7 | 1,162 | 725 | ... | 11 | 736 | 1,808 |
| GRAND TOTAL (COAL) FOR 1931 . | | 884 | 466 | 418 | 581 | 1,005 | 18,358,934 | 65,788 | 42,000 | 1,171 | 108,957 | 49,943 | 38,666 | 3,081 | 61,690 | 190,847 |
| " " OF PRE- CEDING YEAR . | | 783 | 421 | 362 | 459 | 965 | 17,082,711 | 61,157 | 41,052 | 713 | 102,922 | 45,537 | 24,738 | 2,746 | 73,021 | 175,943 |
| DIFFERENCE | | +101 | +45 | +56 | +122 | +40 | +1,276,223 | +4,630 | +948 | +458 | +6,035 | +4,406 | +3,928 | +335 | +8,669 | +14,704 |
| B.—MICA. | | | | | | | | | | | | | | | | |
| Cwt. | | | | | | | | | | | | | | | | |
| Bihar and Orissa | Gray | 87 | ... | 87 | 5 | 5 | 5,018 | 654 | 812 | 78 | 944 | 394 | 177 | 144 | 715 | 1,659 |
| | Hazaribagh | 409 | 40 | 369 | 67 | 68 | 17,987 | 2,776 | 2,010 | 708 | 6,468 | 1,872 | 1,305 | 1,026 | 4,206 | 10,691 |
| | Manbhurn | 1 | ... | 1 | ... | ... | 4 | 8 | ... | ... | 8 | ... | ... | ... | ... | 8 |
| | Monghyr | 7 | ... | 7 | ... | ... | 291 | 85 | 46 | 2 | 133 | 85 | 80 | 84 | 149 | 232 |
| | Sambalpur | 1 | ... | 1 | ... | ... | 4 | 40 | 45 | 5 | 90 | ... | ... | ... | ... | 90 |
| | TOTAL | 465 | 40 | 415 | 72 | 78 | 23,299 | 4,462 | 2,413 | 788 | 7,603 | 2,351 | 1,612 | 1,304 | 6,067 | 12,730 |
| Central Provinces | Balaghat | 1 | ... | 1 | ... | ... | ... | 3 | 2 | ... | 5 | ... | ... | ... | ... | 5 |
| Madras | Kistna | 1 | ... | 1 | ... | ... | 8 | 3 | 3 | ... | 6 | 1 | ... | ... | 1 | 7 |
| | Nellore | 69 | 26 | 69 | 27 | 27 | 4,257 | 1,385 | 716 | 79 | 2,180 | 381 | 267 | 92 | 740 | 2,020 |
| | Nilgiris | 2 | ... | 2 | ... | ... | 14 | 11 | ... | ... | 11 | 9 | 5 | ... | 14 | 25 |
| | Salem | 1 | ... | 1 | ... | ... | 20 | 2 | ... | ... | 2 | 33 | 11 | 2 | 46 | 48 |
| | TOTAL | 93 | 26 | 97 | 27 | 27 | 4,299 | 1,401 | 719 | 79 | 2,199 | 424 | 283 | 94 | 801 | 2,000 |

APPENDIX I—contd.

STATISTICS OF MINES AND MINERALS—contd.

Table No. 1—contd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1921—contd.

| PROVINCE. | District and mineral field. | Number of mines under the scope of the Act. | NUMBER OF MINES. | | NUMBER OF MINES INSPECTED DURING THE YEAR. | | TOTAL OUTPUT. | AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES. | | | | | | | | |
|---------------------|------------------------------|---|-----------------------------|---------------------------------|--|------------------------|---------------|--|----------------|----------------------|---------------------|---------------|----------------|----------------------|---------------------|-------------------------------------|
| | | | Worked by mechanical power. | Not worked by mechanical power. | Number of mines inspected. | Number of inspections. | | BELOW GROUND. | | | | ABOVE GROUND. | | | | Grand total below and above ground. |
| | | | | | | | | Adult males. | Adult females. | Children (under 13). | Total below ground. | Adult males. | Adult females. | Children (under 13). | Total above ground. | |
| Rajputana | Ajmer-Merwara | 60 | ... | 60 | 14 | 14 | 1,872 | 340 | 84 | 38 | 462 | 181 | 134 | 81 | 346 | 808 |
| | B.—MICA—concl'd. | | | | | | Cwt. | | | | | | | | | |
| | GRAND TOTAL (MICA) FOR 1921. | 609 | 66 | 543 | 113 | 114 | 29,470 | 6,206 | 3,218 | 905 | 10,329 | 2,956 | 1,929 | 1,329 | 6,214 | 16,543 |
| | " " OF PRECEDING YEAR. | 674 | 68 | 606 | 181 | 187 | 44,666 | 7,983 | 4,592 | 1,255 | 13,830 | 3,714 | 2,840 | 1,577 | 6,181 | 21,961 |
| | DIFFERENCE | -65 | -2 | -63 | -68 | -73 | -15,196 | -1,777 | -1,374 | -350 | -3,501 | -758 | -911 | -248 | -1,917 | -5,418 |
| Bombay | C.—MANGANESE ORE. | | | | | | Tons. | | | | | | | | | |
| | Panch Mahals | 2 | 1 | 1 | ... | ... | 41,276 | 806 | 558 | 153 | 1,517 | 204 | 77 | 23 | 304 | 1,821 |
| | Balaghat | 28 | 1 | 27 | 21 | 22 | 201,264 | 2,068 | 2,596 | 148 | 4,812 | 620 | 690 | 145 | 1,455 | 6,267 |
| | Bhandara | 4 | ... | 4 | 3 | 3 | 48,112 | 305 | 463 | 34 | 802 | 156 | 180 | 2 | 348 | 1,150 |
| | Chhindwara | 3 | 1 | 2 | 1 | 3 | 43,661 | 374 | 543 | 37 | 964 | 212 | 149 | 43 | 403 | 1,357 |
| | Nagpur | 21 | 1 | 20 | 16 | 18 | 180,851 | 1,901 | 2,269 | 33 | 4,203 | 672 | 556 | 66 | 1,294 | 5,497 |
| | TOTAL | 56 | 3 | 53 | 41 | 46 | 473,838 | 4,648 | 5,371 | 252 | 10,771 | 1,660 | 1,585 | 255 | 3,500 | 14,271 |

| | | | | | | | | | | | | | | | | |
|-----------------------------------|--------------------------------|-----|-----|-----|-----|-----|-----------------|--------|--------|-----|--------|-------|-------|-----|-------|--------|
| Madras | Vizagapatam | 7 | ... | 7 | 1 | 2 | 16,593 | 694 | 462 | 28 | 1,184 | 40 | 11 | ... | 51 | 1,235 |
| GRAND TOTAL (MANGANESE) FOR 1921. | | 65 | 4 | 61 | 42 | 48 | 534,757 | 6,148 | 6,891 | 433 | 13,473 | 1,904 | 1,673 | 278 | 3,855 | 17,327 |
| " " OF PRECEDING YEAR. | | 58 | 7 | 51 | 42 | 45 | 582,636 | 4,645 | 5,144 | 439 | 10,228 | 1,612 | 1,162 | 262 | 3,036 | 13,264 |
| DIFFERENCE | | +7 | -3 | +10 | ... | +3 | -47,879 | +1,503 | +1,747 | -6 | +3,244 | +292 | +511 | +16 | +819 | +4,063 |
| D.—LIMESTONE. | | | | | | | | | | | | | | | | |
| Barma | Northern Shan States | 1 | ... | 1 | 1 | 2 | Tons. 4,967 | 36 | ... | ... | 36 | ... | ... | ... | ... | 36 |
| Central Provinces | Bilaspur | 2 | ... | 2 | ... | ... | 14,343 | 79 | 33 | 8 | 120 | 78 | 93 | 17 | 168 | 308 |
| | Jabalpur, Katni | 33 | 1 | 32 | 22 | 22 | 264,939 | 1,434 | 3,203 | 168 | 4,810 | 479 | 837 | 109 | 1,425 | 6,235 |
| | TOTAL | 35 | 1 | 34 | 22 | 22 | 279,287 | 1,513 | 3,241 | 176 | 4,930 | 557 | 930 | 126 | 1,613 | 6,543 |
| Punjab | Hoshiarpur | 1 | ... | 1 | ... | ... | ... | 20 | ... | ... | 20 | 10 | ... | ... | 10 | 30 |
| GRAND TOTAL (LIMESTONE) FOR 1921. | | 37 | 1 | 36 | 23 | 24 | 284,254 | 1,569 | 3,241 | 17 | 4,986 | 567 | 930 | 126 | 1,623 | 6,609 |
| TOTAL OF PRECEDING YEAR. | | 23 | 1 | 22 | 17 | 16 | 161,340 | 1,328 | 1,626 | 129 | 3,083 | 333 | 743 | 126 | 1,202 | 4,285 |
| DIFFERENCE | | +14 | ... | +14 | +6 | +6 | +122,914 | +241 | +1,615 | +47 | +1,903 | +234 | +187 | ... | +421 | +2,324 |
| E.—SALT. | | | | | | | | | | | | | | | | |
| Punjab | Jhelum | 2 | 1 | 1 | 1 | 1 | Tons. 95,751 | 471 | 265 | 29 | 765 | 62 | ... | ... | 62 | 827 |
| | Mianwali | 1 | ... | 1 | ... | ... | 12,382 | 62 | ... | 14 | 76 | ... | ... | ... | ... | 76 |
| | Shahpur | 1 | ... | 1 | ... | ... | 14,951 | 33 | 24 | 5 | 62 | ... | ... | ... | ... | 62 |
| GRAND TOTAL (SALT) FOR 1921. | | 4 | 1 | 3 | 1 | 1 | 123,084 | 566 | 289 | 48 | 903 | 62 | ... | ... | 62 | 965 |
| " " OF PRECEDING YEAR. | | 4 | 1 | 3 | 1 | 2 | 181,092 | 499 | 333 | 69 | 901 | 67 | 1 | ... | 68 | 969 |
| DIFFERENCE | | ... | ... | ... | ... | -1 | -58,008 | +67 | -44 | +21 | +2 | -5 | -1 | ... | -6 | -4 |

APPENDIX I—contd.

STATISTICS OF MINES AND MINERALS—contd.

Table No. 1—contd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1921—contd.

| PROVINCE. | District and mineral field. | Number of mines under the scope of the Act. | NUMBER OF MINES. | | NUMBER OF MINES INSPECTED DURING THE YEAR. | | TOTAL OUTPUT. | AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES. | | | | | | | | |
|-----------|-----------------------------|---|-----------------------------|---------------------------------|--|------------------------|---------------|--|----------------|----------------------|---------------------|---------------|----------------|----------------------|---------------------|-------------------------------------|
| | | | Worked by mechanical power. | Not worked by mechanical power. | Number of mines inspected. | Number of inspections. | | BELOW GROUND. | | | | ABOVE GROUND. | | | | Grand total below and above ground. |
| | | | | | | | | Adult males. | Adult females. | Children (under 13). | Total below ground. | Adult males. | Adult females. | Children (under 13). | Total above ground. | |
| Burma | Katha, Mogok | 4 | 2 | 2 | F.—GEMS. | | 103,915 | 784 | ... | ... | 784 | 458 | ... | ... | 458 | 1,242 |
| | | | | | (a) Rubies. | Carats. 112,197 | | | | | | | | | | |
| | | | | | (b) Sapphires. | 48,916 | | | | | | | | | | |
| | | | | | (c) Spinels. | 82,802 | | | | | | | | | | |
| | TOTAL | 4 | 2 | 2 | ... | ... | 103,915 | 784 | ... | ... | 784 | 458 | ... | ... | 458 | 1,242 |
| Rajputana | Ajmer | 2 | ... | 2 | (d) Beryl. | | 6,300 | 11 | — | ... | 11 | ... | ... | ... | ... | 11 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | GRAND TOTAL (Gems) FOR 1921 | 6 | 2 | 4 | ... | ... | 200,215 | 795 | ... | ... | 795 | 458 | ... | ... | 458 | 1,253 |
| | " " OF PRECEDING YEAR | 6 | 2 | 4 | 3 | 5 | 156,108 | 789 | 1 | ... | 790 | 429 | ... | ... | 429 | 1,219 |
| | DIFFERENCE | ... | ... | ... | —3 | —5 | +44,107 | +6 | —1 | ... | +5 | +29 | ... | ... | +29 | +34 |

| | | G.—SLATE. | | | | | | | | | | | | | | | |
|-------------------------------|-----------|-----------|-----|-----|-----|-------|---------|-----|-----|-----|-----|-----|-----|-----|------|------|--|
| | | | | | | Tons. | | | | | | | | | | | |
| Bihar and Orissa | Monghyr | 7 | ... | 7 | 5 | 5 | 2,829 | 148 | 112 | 64 | 324 | 149 | ... | ... | 149 | 473 | |
| Panjab | Gurgaon | 6 | ... | 6 | 4 | 4 | 42,630 | 114 | ... | 78 | 192 | 23 | ... | 6 | 29 | 321 | |
| | Kangra | 5 | ... | 5 | ... | ... | 4,878 | 93 | 2 | 2 | 97 | 23 | 20 | 14 | 57 | 154 | |
| TOTAL | | 11 | ... | 11 | 4 | 4 | 47,508 | 207 | 2 | 80 | 389 | 46 | 20 | 20 | 86 | 375 | |
| GRAND TOTAL (SLATE) FOR 1921. | | 18 | ... | 18 | 9 | 9 | 50,387 | 355 | 114 | 144 | 613 | 195 | 20 | 20 | 235 | 848 | |
| " " OF PRECEDING YEAR. | | 18 | ... | 18 | 5 | 5 | 10,345 | 370 | 186 | 74 | 630 | 181 | 30 | 20 | 291 | 861 | |
| DIFFERENCE | | ... | ... | ... | +4 | +4 | +30,992 | -15 | -72 | +70 | -17 | +14 | -10 | .. | +4 | -13 | |
| | | H.—GOLD. | | | | | | | | | | | | | | | |
| | | | | | | Ozs. | | | | | | | | | | | |
| Bihar and Orissa | Singhbhum | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | 18 | ... | ... | 18 | 18 | |
| Madras | Anantapur | 3 | 3 | ... | 2 | 2 | 10,108 | 101 | ... | ... | 101 | 309 | 82 | 43 | 494 | 535 | |
| GRAND TOTAL (GOLD) FOR 1921. | | 4 | 4 | ... | 2 | 2 | 10,108 | 101 | ... | ... | 101 | 322 | 82 | 43 | 447 | 548 | |
| " " OF PRECEDING YEAR. | | 4 | 4 | ... | 1 | 2 | 13,645 | 104 | 15 | ... | 119 | 250 | 43 | 22 | 315 | 484 | |
| DIFFERENCE | | ... | ... | ... | +1 | ... | -3,537 | -3 | -15 | ... | -18 | +72 | +39 | +21 | +132 | +114 | |

APPENDIX I—contd.

STATISTICS OF MINES AND MINERALS—contd.

Table No. 1—contd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1921—contd.

| PROVINCE. | District and mineral field. | Number of mines under the scope of the Act. | NUMBER OF MINES. | | NUMBER OF MINES INSPECTED DURING THE YEAR. | | TOTAL OUTPUT. Tons. | AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES. | | | | | | | | |
|------------------------------|-----------------------------|---|-----------------------------|---------------------------------|--|------------------------|------------------------|--|----------------|----------------------|---------------------|---------------|----------------|----------------------|---------------------|-------------------------------------|
| | | | Worked by mechanical power. | Not worked by mechanical power. | Number of mines inspected. | Number of inspections. | | BELOW GROUND. | | | | ABOVE GROUND. | | | | Grand total below and above ground. |
| | | | | | | | | Adult males. | Adult females. | Children (under 12). | Total below ground. | Adult males. | Adult females. | Children (under 12). | Total above ground. | |
| I.—IRON ORE. | | | | | | | | | | | | | | | | |
| Bihar and Orissa . . . | Singbhum | 5 | 1 | 4 | 2 | 2 | 236,286 | 848 | 587 | 90 | 1,525 | 480 | 264 | 11 | 755 | 2,280 |
| Burma | Mandalay | 1 | ... | 1 | ... | ... | 11,916 | 159 | ... | ... | 159 | 23 | 1 | ... | 24 | 183 |
| | Northern Shan States . . . | 2 | ... | 2 | 2 | 2 | 37,915 | 237 | 28 | ... | 265 | 311 | 11 | ... | 322 | 587 |
| | TOTAL | 3 | ... | 3 | 2 | 2 | 49,831 | 396 | 28 | ... | 424 | 334 | 12 | ... | 346 | 770 |
| Rajputana | Ajmer-Merwara | 1 | 1 | ... | ... | ... | 73 | 5 | ... | ... | 5 | 25 | ... | ... | 25 | 30 |
| GRAND TOTAL (IRON) FOR 1921. | | 9 | 2 | 7 | 4 | 4 | 286,190 | 1,249 | 615 | 90 | 1,954 | 839 | 276 | 11 | 1,126 | 3,080 |
| " " OF PRECEDING YEAR. | | 11 | 2 | 9 | 3 | 4 | 148,472 | 714 | 307 | 63 | 1,084 | 1,138 | 327 | 41 | 1,508 | 2,590 |
| DIFFERENCE : | | -2 | ... | -2 | +1 | ... | +137,718 | +535 | +308 | +27 | +870 | -299 | -51 | -30 | -380 | +490 |

J.—WOLFRAM ORE.

| | | | | | | Tons. | | | | | | | | | | | |
|---------------------------------|------------------|-----|-----|-----|-----|-------|--------|--------|------|-----|--------|--------|-----|-----|--------|--------|--|
| Burma | Mergui | 1 | ... | 1 | ... | ... | 1 | 33 | 8 | ... | 41 | 4 | 5 | ... | 9 | 50 | |
| | Tatoy | 14 | 2 | 12 | 11 | 11 | 884 | 1,649 | 14 | 4 | 1,667 | 325 | 2 | ... | 327 | 1,994 | |
| TOTAL | | 15 | 2 | 13 | 11 | 11 | 884½ | 1,682 | 22 | 4 | 1,708 | 329 | 7 | ... | 336 | 2,044 | |
| GRAND TOTAL (WOLFRAM) FOR 1921. | | 15 | 2 | 13 | 11 | 11 | 884½ | 1,682 | 22 | 4 | 1,708 | 329 | 7 | ... | 336 | 2,044 | |
| " " OF PRECEDING YEAR. | | 52 | 4 | 48 | ... | ... | 1,733½ | 2,870 | 135 | 19 | 3,024 | 1,400 | 76 | 44 | 1,520 | 4,544 | |
| DIFFERENCE | | -37 | -2 | -35 | +11 | +11 | -849½ | -1,188 | -113 | -15 | -1,316 | -1,071 | -69 | -44 | -1,184 | -2,500 | |

K.—MAGNESITE.

| | | | | | | Tons. | | | | | | | | | | | |
|-----------------------------------|-----------------|-----|-----|-----|-----|-------|--------|-----|-----|-----|------|-----|-----|----|-----|------|--|
| Madras | Salem | 2 | ... | 2 | ... | ... | 17,162 | 238 | 230 | 330 | 798 | 109 | ... | 32 | 141 | 939 | |
| TOTAL OF PRECEDING YEAR | | 2 | ... | 2 | 1 | 1 | 11,300 | 204 | 146 | 248 | 598 | 105 | ... | 29 | 134 | 732 | |
| DIFFERENCE | | ... | ... | ... | -1 | -1 | +5,852 | +34 | +84 | +82 | +200 | +4 | ... | +3 | +7 | +207 | |

L.—CHROMITE ORE.

| | | | | | | Tons. | | | | | | | | | | | |
|----------------------------------|--------------------|-----|-----|-----|-----|-------|--------|-----|-----|-----|-----|------|------|-----|------|-------|--|
| Baluchistan | Zhob | 22 | ... | 22 | ... | ... | 25,122 | 343 | ... | ... | 343 | 110 | ... | ... | 110 | 453 | |
| Bihar and Orissa | Singbhum | 2 | ... | 2 | ... | ... | 2,605 | 84 | 102 | 17 | 203 | 41 | 44 | 17 | 102 | 805 | |
| GRAND TOTAL (CHROMITE) FOR 1921. | | 24 | ... | 24 | ... | ... | 27,727 | 427 | 102 | 17 | 546 | 151 | 44 | 17 | 212 | 758 | |
| TOTAL OF PRECEDING YEAR. | | 24 | ... | 24 | ... | ... | 23,123 | 376 | 188 | 2 | 566 | 274 | 347 | 18 | 639 | 1,205 | |
| DIFFERENCE | | ... | ... | ... | ... | ... | +4,604 | +51 | -80 | +15 | -20 | -125 | -303 | -1 | -427 | -447 | |

APPENDIX I—contd.

STATISTICS OF MINES AND MINERALS—contd.

Table No. 1—contd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1921—contd.

| PROVINCE. | District and mineral field. | Number of mines under the scope of the Act. | NUMBER OF MINES. | | NUMBER OF MINES INSPECTED DURING THE YEAR. | | TOTAL OUTPUT. | AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES. | | | | | | | | |
|-------------------------|---|---|-----------------------------|---------------------------------|--|------------------------|-----------------|--|----------------|----------------------|---------------------|---------------|----------------|----------------------|---------------------|-------------------------------------|
| | | | Worked by mechanical power. | Not worked by mechanical power. | Number of mines inspected. | Number of inspections. | | BELOW GROUND. | | | | ABOVE GROUND. | | | | Grand total below and above ground. |
| | | | | | | | | Adult males. | Adult females. | Children (under 13). | Total below ground. | Adult males. | Adult females. | Children (under 13). | Total above ground. | |
| M.—COPPER ORE. | | | | | | | | | | | | | | | | |
| Bihar and Orissa . . . | Singhbhaini | 3 | 2 | 1 | 2 | 2 | Tons. 32,560 | 711 | ... | ... | 711 | 1,382 | 672 | 72 | 2,126 | 2,837 |
| Central Provinces . . . | Balaghat | 1 | ... | 1 | ... | ... | ... | 23 | 4 | ... | 27 | 12 | 5 | 2 | 19 | 48 |
| | GRAND TOTAL (COPPER ORE) FOR 1921. | 4 | 2 | 2 | 2 | 2 | 32,560 | 734 | 4 | ... | 738 | 1,394 | 677 | 74 | 2,145 | 2,883 |
| | TOTAL OF PRECEDING YEAR. | 3 | 1 | 2 | 1 | 3 | 28,167 | 508 | 6 | ... | 512 | 955 | 637 | 52 | 1,644 | 2,156 |
| | DIFFERENCE . . . | +1 | +1 | ... | +1 | -1 | +4,393 | +226 | -2 | ... | +326 | +439 | +40 | +22 | +501 | +727 |
| N.—BAUXITE. | | | | | | | | | | | | | | | | |
| Bombay | Kaira | 1 | 1 | ... | 1* | 1 | Cwt. 93,060 | 186 | 55 | 17 | 208 | 9 | 4 | ... | 13 | 221 |
| | TOTAL OF PRECEDING YEAR . . . | 1 | 1 | ... | ... | ... | 78,630 | 45 | 35 | 11 | 91 | 6 | ... | ... | 6 | 97 |
| | DIFFERENCE . . . | ... | ... | ... | +1 | +1 | +14,430 | +91 | +20 | +6 | +117 | +3 | +4 | ... | +7 | +124 |
| O.—CALCITE. | | | | | | | | | | | | | | | | |
| Bihar and Orissa . . . | Bhagalpur | 1 | ... | 1 | ... | ... | Tons. 3 | 2 | 2 | ... | 4 | 2 | 2 | ... | 4 | 8 |

* In Jabalpur District, Central Provinces—mine closed.

| | | P.—CLAY. | | | | | Tons. | | | | | | | | | | |
|---|--------------------------------|---------------------|------------|------------|------------|------------|--------------------|-------------|------------|------------|--------------|-------------|------------|------------|-------------|--------------|--|
| Bihar and Orissa | Bhagalpur | 2 | ... | 2 | ... | ... | 1,863 | 50 | 50 | 1 | 101 | 116 | 73 | 96 | 285 | 336 | |
| | Mandbhum | 1 | ... | 1 | ... | ... | 20,109 | 88 | 33 | ... | 131 | ... | ... | ... | ... | 131 | |
| | Palamu | 1 | ... | 1 | ... | ... | 3,678 | 12 | 18 | 6 | 36 | 18 | 10 | 6 | 34 | 70 | |
| | TOTAL | 4 | ... | 4 | ... | ... | 25,650 | 150 | 101 | 7 | 258 | 134 | 83 | 103 | 319 | 577 | |
| Central Provinces | Jabalpur | 5 | 2 | 3 | 3 | 3 | 49,024 | 347 | 431 | 49 | 817 | 40 | ... | ... | 40 | 857 | |
| Delhi | Delhi | 5 | ... | 5 | ... | ... | 12,801 | 49 | ... | ... | 49 | 34 | 1 | ... | 35 | 84 | |
| GRAND TOTAL (CLAY) FOR 1921. | | 14 | 2 | 12 | 3 | 3 | 87,475 | 546 | 522 | 56 | 1,124 | 208 | 84 | 102 | 394 | 1,516 | |
| TOTAL OF PRECEDING YEAR. | | 12 | 2 | 10 | 2 | 6 | 90,538 | 520 | 545 | 52 | 1,117 | 204 | 123 | 26 | 353 | 1,470 | |
| DIFFERENCE | | +2 | ... | +2 | +1 | -3 | -3,063 | +26 | -23 | +4 | +7 | +4 | -39 | +76 | +41 | +48 | |
| | | Q.—LEAD ORE. | | | | | Tons. | | | | | | | | | | |
| Burma | Northern Shan States | 1 | 1 | ... | 1 | 4 | *144,089 | 992 | ... | ... | 992 | 428 | ... | ... | 428 | 1,420 | |
| Central Provinces | Drug | 1 | ... | 1 | ... | ... | 1/2 | 5 | 12 | ... | 17 | 5 | 12 | ... | 17 | 34 | |
| GRAND TOTAL (LEAD ORE) FOR 1921. | | 2 | 1 | 1 | 1 | 4 | 144,089 1/2 | 997 | 12 | ... | 1,009 | 433 | 12 | ... | 445 | 1,454 | |
| TOTAL OF PRECEDING YEAR. | | 2 | 1 | 1 | 1 | 5 | 128,908 1/2 | 617 | 12 | .. | 629 | 343 | 12 | ... | 355 | 984 | |
| DIFFERENCE | | ... | ... | ... | ... | -1 | +15,181 1/2 | +380 | ... | ... | +380 | +90 | ... | ... | +90 | +470 | |
| | | R.—TIN ORE. | | | | | Tons. | | | | | | | | | | |
| Bihar and Orissa | Hazaribagh | 1 | 1 | ... | ... | ... | ... | 4 | ... | ... | 4 | 5 | 4 | 5 | 14 | 18 | |
| Burma | Mergul | 11 | 1 | 10 | 2 | 2 | 130 | 446 | ... | ... | 446 | 218 | 7 | ... | 225 | 671 | |
| | Tavoy | 18 | 1 | 17 | ... | ... | 901 | 393 | ... | ... | 393 | 488 | 34 | ... | 523 | 916 | |
| | Thaton | 1 | ... | 1 | ... | ... | 1 | 3 | 6 | ... | 9 | ... | ... | ... | ... | 9 | |
| TOTAL | | 30 | 2 | 28 | 2 | 2 | 1,032 | 842 | 6 | ... | 848 | 706 | 41 | ... | 747 | 1,595 | |
| GRAND TOTAL (TIN ORE) FOR 1921. | | 31 | 3 | 26 | 2 | 2 | 1,032 | 846 | 6 | ... | 852 | 711 | 45 | 5 | 761 | 1,613 | |
| TOTAL OF PRECEDING YEAR. | | 25 | 2 | 23 | 1 | 1 | 1,055 1/2 | 639 | 59 | 8 | 706 | 373 | 36 | 13 | 422 | 1,126 | |
| DIFFERENCE | | + 6 | +1 | +5 | +1 | +1 | -23 1/2 | +207 | -53 | -8 | +146 | +338 | +9 | -8 | +339 | +485 | |

* Amount of refined lead extracted=39,717 Tons.

APPENDIX I—contd.

STATISTICS OF MINES AND MINERALS—contd.

Table No. 1—contd.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1921—contd.

| Province. | District and mineral field. | Number of mines under the scope of the Act. | NUMBER OF MINES. | | NUMBER OF MINES INSPECTED DURING THE YEAR. | | TOTAL OUTPUT. | AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES. | | | | | | | | |
|-------------------------|--|---|-----------------------------|---------------------------------|--|------------------------|---------------|--|----------------|----------------------|---------------------|---------------|----------------|----------------------|---------------------|-------------------------------------|
| | | | Worked by mechanical power. | Not worked by mechanical power. | Number of mines inspected. | Number of inspections. | | BELOW GROUND. | | | | ABOVE GROUND. | | | | Grand total below and above ground. |
| | | | | | | | | Adult males. | Adult females. | Children (under 13). | Total below ground. | Adult males. | Adult females. | Children (under 13). | Total above ground. | |
| | | | | | S.—STEATITE. | | | | | | | | | | | |
| Bihar and Orissa . . . | Bhagalpur | 1 | ... | 1 | ... | ... | Cwt. 1,800 | 5 | 3 | ... | 8 | 3 | 3 | ... | 6 | 14 |
| Central Provinces . . . | Jabalpur | 3 | ... | 3 | 3 | 3 | 21,597 | 71 | 51 | ... | 122 | 19 | 55 | 21 | 95 | 217 |
| Madras | Nellore | 2 | ... | 2 | ... | ... | 33 | 4 | ... | ... | 4 | 9 | 2 | ... | 11 | 15 |
| | GRAND TOTAL (STEATITE) FOR 1921. | 6 | ... | 6 | 3 | 3 | 23,430 | 80 | 54 | ... | 134 | 31 | 60 | 21 | 112 | 246 |
| | " " OF PRECEDING YEAR. | 4 | ... | 4 | 3 | 3 | 45,910 | 74 | 51 | ... | 125 | 26 | 49 | 17 | 92 | 217 |
| | DIFFERENCE | +2 | ... | +2 | ... | ... | -22,480 | +6 | +3 | ... | +9 | +5 | +11 | +4 | +20 | +29 |
| | | | | | T.—FULLERS' EARTH. | | | | | | | | | | | |
| | | | | | | | Tons. | | | | | | | | | |
| Central Provinces . . . | Jabalpur | ... | ... | ... | ... | ... | 113* | | | | | | | | | |
| | TOTAL OF PRECEDING YEAR | ... | ... | ... | ... | ... | 197 | <i>Labour figures included with those for limestone</i> | | | | | | | | |
| | DIFFERENCE | ... | ... | ... | ... | ... | -84 | | | | | | | | | |

* Won from a limestone mine.

| | | U.—SILVER. | | | | | | | | | | | | | | | | |
|---|----------------------|------------|-----|-----|-----|-----|---------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | | | | Ozs. | | | | | | | | | | | |
| Burma | Northern Shan States | ... | ... | ... | ... | ... | 3,555,021* | <i>Labour figures included with those for lead ore.</i> | | | | | | | | | | |
| Madras | Anantapur | ... | ... | ... | ... | ... | 619† | <i>Labour figures included with those for gold.</i> | | | | | | | | | | |
| GRAND TOTAL (SILVER) FOR 1921. | | ... | ... | ... | ... | ... | 3,555,640 | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| TOTAL OF PRECEDING YEAR | | ... | ... | ... | ... | ... | 2,870,595 | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| DIFFERENCE | | ... | ... | ... | ... | ... | +85,045 | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| | | | | | | | V.—APATITE. | | | | | | | | | | | |
| Bihar and Orissa | Singhbhum | 1 | ... | 1 | ... | ... | Tons. 347 | 4 | 7 | ... | 11 | 8 | 21 | ... | 29 | 40 | | |
| | | | | | | | W.—GRAPHITE. | | | | | | | | | | | |
| Bihar and Orissa | Bhagalpur | 1 | ... | 1 | ... | ... | Cwt. 20 | 11 | 15 | 4 | 30 | 3 | 5 | 2 | 10 | 40 | | |
| Central Provinces | Betul | 1 | ... | 1 | ... | ... | 483 | 3 | 4 | ... | 7 | 1 | 1 | 2 | 4 | 11 | | |
| GRAND TOTAL (GRAPHITE) FOR 1921. | | 2 | ... | 2 | ... | ... | 508 | 14 | 19 | 4 | 37 | 4 | 6 | 4 | 14 | 51 | | |
| TOTAL OF PRECEDING YEAR | | 7 | ... | 7 | ... | ... | 702 | 37 | 24 | ... | 61 | 10 | 7 | ... | 17 | 78 | | |
| DIFFERENCE | | -5 | ... | -5 | ... | ... | -199 | -23 | -5 | +4 | -24 | -6 | -1 | +4 | -3 | -27 | | |
| | | | | | | | X.—OCHRE. | | | | | | | | | | | |
| Bihar and Orissa | Puri | 1 | 1 | ... | ... | ... | Tons. 450 | 8 | ... | ... | 8 | 25 | ... | ... | 25 | 33 | | |
| TOTAL OF PRECEDING YEAR | | 1 | 1 | ... | ... | ... | 400 | 8 | ... | ... | 8 | 29 | ... | ... | 29 | 37 | | |
| DIFFERENCE | | ... | ... | ... | ... | ... | +50 | ... | ... | ... | ... | -4 | ... | ... | -4 | -4 | | |

* Extracted from 164,089 tons of lead ore.
† Won from the Anantapur gold mine.

APPENDIX I,—*contd.*

STATISTICS OF MINES AND MINERALS—*concl'd.*

Table No. 1—*concl'd.*

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1921—*concl'd.*

| PROVINCE. | District and mineral field. | Number of mines under the scope of the Act. | NUMBERS OF MINES. | | NUMBERS OF MINES INSPECTED DURING THE YEAR. | | TOTAL OUTPUT. | AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES. | | | | | | | | |
|------------------|-----------------------------------|---|-----------------------------|---------------------------------|---|------------------------|---------------|--|---|----------------------|---------------------|---------------|----------------|----------------------|---------------------|-------------------------------------|
| | | | Worked by mechanical power. | Not worked by mechanical power. | Number of mines inspected. | Number of inspections. | | BELOW GROUND. | | | | ABOVE GROUND. | | | | Grand total below and above ground. |
| | | | | | | | | Adult males. | Adult females. | Children (under 13). | Total below ground. | Adult males. | Adult females. | Children (under 13). | Total above ground. | |
| Burma | Tavoy | 1 | ... | 1 | ... | ... | Cwt. 2 | 5 | ... | ... | 5 | 3 | ... | ... | 3 | 8 |
| | TOTAL OF PRECEDING YEAR | 1 | ... | 1 | ... | ... | 1 | ... | <i>Labour figures included with those for wolfram</i> | | | | | | ... | |
| | DIFFERENCE | ... | ... | ... | ... | ... | +1 | +5 | ... | ... | +5 | +3 | ... | ... | +3 | +8 |
| Madras | Kernool | 1 | ... | 1 | ... | ... | Cwt. 9,400 | 7 | ... | ... | 7 | 2 | 8 | 10 | 20 | 27 |
| | TOTAL OF PRECEDING YEAR | 1 | ... | 1 | ... | ... | 4,260 | 5 | ... | ... | 5 | 4 | 7 | 9 | 20 | 25 |
| | DIFFERENCE | ... | ... | ... | ... | ... | +5,140 | +2 | ... | ... | +2 | -2 | +1 | +1 | ... | +3 |

| | | | | | | | | | | | | | | | |
|----------------------------------|-------|-----|-------|-----|-------|---|--------|--------|-------|---------|--------|--------|-------|---------|---------|
| GRAND TOTAL (ALL MINERALS) 1921. | 1,741 | 558 | 1,183 | 798 | 1,293 | Tons. 19,949,388½ Cwt. 155,885 Carats. 200,215 Troy ounces. 3,565,748 | 88,501 | 57,403 | 3,395 | 148,299 | 60,885 | 34,548 | 5,153 | 100,364 | 249,883 |
| GRAND TOTAL OF PRECEDING YEAR. | 1,716 | 518 | 1,168 | 702 | 1,228 | Tons. 18,452,088½ Cwt. 174,172½ Carats. 158,108 Troy ounces. 2,884,240 | 83,480 | 54,457 | 3,082 | 141,029 | 56,990 | 31,178 | 5,002 | 93,170 | 234,199 |
| DIFFERENCE . . . | +25 | +40 | -15 | +96 | +65 | Tons. +1,497,320½ Cwt. -18,307½ Carats. +44,107 Troy ounces. +679,508 | +5,021 | +2,946 | +313 | +8,270 | +3,895 | +3,370 | +151 | +7,194 | +15,684 |

APPENDIX I—contd.

/ Table No. 2.

Analyses of figures relating to output of coal.

| PROVINCE | District and mineral field, | OPENING STOCKS. | | RAISINGS. | | TOTAL. | | DISPATCHES. | | COLLIERY CONSUMPTION. | | COAL DELIVERED TO COKING. | | CLOSING STOCKS. | | COKE MADE. | |
|-------------|-----------------------------|-----------------|--------|-----------|---------|-----------|---------|-------------|---------|-----------------------|---------|---------------------------|--------|-----------------|--------|------------|------------|
| | | Steam. | Slack. | Steam. | Slack. | Steam. | Slack. | Steam. | Slack. | Steam. | Slack. | Steam. | Slack. | Steam. | Slack. | Hard coke. | Soft coke. |
| | | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. |
| Assam | Lakhimpur | 3,424 | ... | 269,198 | ... | 272,622 | ... | 257,495 | ... | 13,483 | ... | 768 | ... | 516 | ... | 256 | ... |
| | Naga Hills | 478 | ... | 42,824 | ... | 43,302 | ... | 42,832 | ... | 374 | ... | ... | ... | 96 | ... | ... | ... |
| | Sibsagar | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | TOTAL | 3,902 | ... | 312,022 | ... | 315,924 | ... | 300,327 | ... | 14,217 | ... | 768 | ... | 612 | ... | 256 | ... |
| Baluchistan | Quetta-Fishin | 311 | 937 | ... | 10,902 | 311 | 11,839 | ... | 10,474 | ... | 200 | ... | ... | 311 | 1,165 | ... | ... |
| | Sibi-Khost | 276 | 1,036 | 3,945 | 27,308 | 4,221 | 28,344 | 3,890 | 20,772 | 12 | 5,674 | ... | ... | 319 | 1,898 | ... | ... |
| | TOTAL | 587 | 1,973 | 3,945 | 38,210 | 4,532 | 40,183 | 3,890 | 31,246 | 12 | 5,874 | ... | ... | 630 | 3,063 | ... | ... |
| Bengal | Bankura-Raniganj | 11 | 2,020 | 4,058 | 897 | 4,099 | 2,917 | 2,972 | 200 | 819 | 1,304 | 220 | ... | 88 | 1,418 | ... | 147 |
| | Birbhum " | 213 | 18 | 3,621 | 731 | 3,834 | 749 | 1,548 | 114 | 2,037 | 600 | ... | ... | 249 | 35 | ... | ... |
| | Burdwan " | 159,187 | 34,834 | 3,654,752 | 595,553 | 3,813,939 | 630,347 | 3,315,277 | 203,838 | 324,618 | 392,400 | 10,346 | 4,064 | 163,698 | 30,081 | 1,355 | 6,820 |
| | TOTAL | 159,411 | 36,872 | 3,662,441 | 597,181 | 3,821,872 | 634,053 | 3,319,797 | 204,147 | 327,474 | 394,313 | 10,566 | 4,064 | 164,035 | 31,529 | 1,355 | 6,967 |

| | | | | | | | | | | | | | | | | | | | |
|------------------|-------------------------|------------|-----------|-----------|------------|------------|------------|------------|------------|------------|-----------|-----------|---------|---------|-----------|-----------|---------|---------|---------|
| Bihar and Orissa | Bokaro-Ramgarh | | 1,312 | 762 | 819,401 | 110,742 | 819,713 | 111,504 | 814,934 | 93,557 | 3,750 | 9,538 | ... | 7,709 | 1,029 | 70 | 819 | 4,814 | |
| | | Hazaribagh | Giridih | 9,774 | 2,281 | 597,746 | 206,359 | 607,520 | 212,673 | 583,291 | 96,559 | 8,781 | 53,758 | ... | 53,681 | 16,058 | 8,645 | 39,981 | ... |
| | Manbhum | Jharia | 26,042 | 7,936 | 152,326 | 28,508 | 178,368 | 36,444 | 136,532 | 23,776 | 15,710 | 4,144 | 779 | 1,478 | 23,347 | 7,046 | 1,119 | ... | |
| | | Raniganj | 1,613,159 | 281,334 | 8,327,497 | 1,551,313 | 9,040,656 | 1,832,652 | 7,778,186 | 836,573 | 672,682 | 619,748 | 164,088 | 94,168 | 1,325,705 | 282,164 | 78,226 | 71,730 | |
| | Palamanu-Daltonganj | | 731 | ... | 32,691 | 3,899 | 33,422 | 3,899 | 27,555 | 3,899 | 5,037 | ... | ... | ... | 830 | ... | ... | ... | |
| | Sambalpur-Hingir Bampur | | ... | ... | 61,822 | 15,455 | 61,822 | 15,455 | 61,704 | ... | 118 | 15,455 | ... | ... | ... | ... | ... | ... | |
| | Sonthal Par-ganna | Jainty | 2,692 | 3,355 | 96,676 | 8,976 | 99,368 | 12,331 | 97,139 | 3,700 | ... | 8,416 | ... | ... | 2,229 | 215 | ... | ... | |
| | | Raniganj | 418 | 1,099 | 11,576 | 2,439 | 11,994 | 3,538 | 5,230 | 857 | 3,006 | 685 | ... | ... | 3,753 | 1,996 | ... | ... | |
| | | TOTAL | | 1,857,222 | 329,746 | 10,871,301 | 2,093,358 | 12,728,523 | 2,423,104 | 10,071,544 | 1,143,920 | 839,245 | 791,464 | 382,356 | 162,819 | 1,555,978 | 324,901 | 119,525 | 144,814 |
| | Central Provinces | Betul | | ... | ... | 190 | 20 | 190 | 20 | ... | ... | 40 | 20 | ... | ... | 150 | ... | ... | ... |
| Chanda | | | 1,055 | 643 | 132,212 | 39,213 | 133,267 | 39,856 | 127,622 | 19,215 | 4,436 | 18,041 | ... | ... | 1,309 | 2,600 | ... | ... | |
| Chhindwara | | | 2,438 | 1,102 | 370,194 | 79,117 | 372,627 | 80,319 | 301,401 | 49,218 | 4,348 | 27,102 | ... | ... | 5,878 | 8,809 | ... | ... | |
| Narsinghpur | | | 242 | 1,529 | 68,656 | 20,987 | 68,998 | 22,496 | 64,093 | 17,476 | 4,765 | 1,309 | ... | ... | 40 | 3,711 | ... | ... | |
| Yeotmal | | | 98 | 28 | 2,044 | 301 | 2,142 | 327 | 1,518 | 286 | 69 | ... | ... | ... | 855 | 41 | ... | ... | |
| | TOTAL | | 3,828 | 3,300 | 573,296 | 139,618 | 577,124 | 142,918 | 555,634 | 86,195 | 13,658 | 46,472 | ... | ... | 7,832 | 10,251 | ... | ... | |
| Burma | Southern Shan States | | ... | ... | 40 | 260 | 40 | 260 | 40 | 30 | ... | 6 | ... | ... | ... | 294 | ... | ... | |
| Panjab | Jhelum | | ... | 4,515 | 2,218 | 48,421 | 2,218 | 52,936 | 1,118 | 46,602 | 1,100 | 2,415 | ... | ... | ... | 3,919 | ... | ... | |
| | Mianwali | | 76 | 1,074 | 1,555 | 10,297 | 1,631 | 11,371 | 1,340 | 10,478 | ... | ... | ... | 291 | 898 | ... | ... | | |
| | Shahpur | | ... | 1,024 | 371 | 4,880 | 371 | 5,404 | 371 | 4,125 | ... | 117 | ... | ... | ... | 1,162 | ... | ... | |
| | TOTAL | | 76 | 6,613 | 4,144 | 63,098 | 4,220 | 69,711 | 2,829 | 61,200 | 1,100 | 2,532 | ... | ... | 291 | 5,979 | ... | ... | |
| | GRAND TOTAL 1921 | | 2,025,026 | 378,504 | 15,427,209 | 2,931,725 | 17,452,235 | 3,310,229 | 14,354,061 | 1,526,788 | 1,195,706 | 1,240,661 | 273,690 | 166,888 | 1,728,778 | 375,947 | 121,186 | 151,417 | |

APPENDIX I—contd.

Table No. 3.
Number of mines opened and closed during the year ending 31st
December 1921.

| Province. | District. | Number of mines opened. | Number of mines closed. |
|-----------------------------|--------------------------------------|-------------------------|-------------------------|
| A.—COAL. | | | |
| BALUCHISTAN | Sibi-Khost | 2 | ... |
| | Quetta-Pishin | 1 | 1 |
| | TOTAL | 3 | 1 |
| BENGAL | Birbhum | 4 | 1 |
| | Burdwan-Raniganj | 23 | 5 |
| | TOTAL | 27 | 6 |
| BIHAR AND ORISSA | Hazaribagh { Girdih | 3 | ... |
| | { Jharra | 1 | ... |
| | Manbhum { Jharra | 43 | 4 |
| | { Raniganj | 16 | 1 |
| | Sonthal Parganas, Raniganj | 1 | ... |
| TOTAL | 64 | 5 | |
| BURMA | Southern Shan States | 2 | 1 |
| CENTRAL PROVINCES | Betul | 1 | ... |
| | Chanda | ... | 1 |
| | Chhindwara | 18 | 8 |
| | TOTAL | 19 | 9 |
| PANJAB | Jhelum | 1 | 3 |
| | Shahpur | 1 | ... |
| | TOTAL (COAL) | 117 | 25 |

APPENDIX I—*contd.*Table No. 3—*contd.*

Number of mines opened and closed during the year ending 31st
December 1921—*contd.*

| Province. | District. | Number of mines opened. | Number of mines closed. |
|-----------------------------|----------------------------|-------------------------|-------------------------|
| | B.—MICA. | | |
| BIHAR AND ORISSA | Gaya | 13 | 13 |
| | Hazaribagh | 102 | 194 |
| | Manbhum | ... | 1 |
| | Monghyr | 1 | 6 |
| | TOTAL . | 116 | 214 |
| CENTRAL PROVINCES | Balaghat | ... | 1 |
| MADRAS | Kistna | ... | 1 |
| | Nellore | 18 | 29 |
| | Salem | ... | 1 |
| | Nilgiris | 2 | ... |
| | TOTAL . | 20 | 31 |
| RAJPUTANA | Ajmer-Merwara | 17 | 27 |
| | TOTAL (MICA) . | 153 | 273 |
| | C.—MANGANESE ORE. | | |
| CENTRAL PROVINCES | Balaghat | 4 | 4 |
| | Chhindwara | ... | 2 |
| | Nagpur | ... | 2 |
| | TOTAL . | 4 | 8 |
| MADRAS | Vizagapatam | ... | 4 |
| | TOTAL (MANGANESE) . | 4 | 12 |

APPENDIX I—*contd.*Table No. 3—*contd.*

Number of mines opened and closed during the year ending 31st
December 1921—*contd.*

| Province. | District. | Number of mines opened. | Number of mines closed. |
|-----------------------------|--------------------------------|-------------------------|-------------------------|
| D.—SLATE. | | | |
| BIHAR AND ORISSA | Monghyr | ... | 3 |
| E.—LIMESTONE. | | | |
| CENTRAL PROVINCES | Jabalpur | 4 | 5 |
| F.—IRON ORE. | | | |
| BURMA | Mandalay | ... | 1 |
| | Northern Shan States | 1 | 1 |
| | TOTAL (IRON) | 1 | 2 |
| G.—SALT. | | | |
| PANJAB | Jhelum | ... | 1 |
| H.—APATITE. | | | |
| BIHAR AND ORISSA | Singhbhum | 1 | ... |
| I.—GEMS (Rubies). | | | |
| BURMA | Katha | ... | 2 |
| J.—COPPER ORE. | | | |
| BIHAR AND ORISSA | Singhbhum | 1 | ... |
| K.—CLAY. | | | |
| BIHAR AND ORISSA | Bhagalpur | ... | 1 |
| DELHI | Delhi | 3 | 2 |
| | TOTAL (CLAY) | 3 | 3 |

APPENDIX I—*concl.*Table No. 3—*concl.*

Number of mines opened and closed during the year ending 31st
December 1921—*concl.*

| Province. | District. | Number of mines opened. | Number of mines closed. |
|-----------------------------------|----------------------|-------------------------|-------------------------|
| L.—LEAD ORE. | | | |
| CENTRAL PROVINCES | Drug | 1 | 1 |
| M.—TIN ORE. | | | |
| BIHAR AND ORISSA | Hazaribagh | ... | 1 |
| BURMA | Mergui | 4 | 3 |
| | Tavoy | 4 | 1 |
| TOTAL (TIN) | | 8 | 5 |
| N.—STEATITE. | | | |
| BIHAR AND ORISSA | Bhagalpur | 1 | 1 |
| O.—BAUXITE. | | | |
| BOMBAY | Kaira | ... | 1 |
| P.—CALCITE. | | | |
| BIHAR AND ORISSA | Bhagalpur | 1 | 1 |
| Q.—GRAPHITE. | | | |
| BIHAR AND ORISSA | Bhagalpur | ... | 1 |
| GRAND TOTAL (ALL MINES) | | 295 | 336 |

APPENDIX I—concl'd.

Table No. 4.

The following table shows the fluctuations in the output of the principal minerals raised from mines classed under the Indian Mines Act, 1901. The other minerals raised are gems, slate, magnesite, steatite, clay, bauxite, fuller's earth, graphite, molybdenite, ochre, barytes, apatite and calcite.

| YEAR. | Coal. | Manga- nese ore. | Mica. | Limestone | Salt. | Gold. | Copper ore. | Wol- fram. | Iron ore. | Chro- mite ore. | Tin ore. | Lead ore. | Silver. |
|--------|------------|---------------------|--------|-----------|---------|-----------|----------------|---------------|-----------|-----------------------|----------|--------------|-----------|
| | Tons. | Tons, | Cwt. | Tons. | Tons. | Troy ozs. | Tons. | Tons. | Tons. | Tons. | Tons | Tons. | Ozs. |
| 1912 . | 14,044,368 | 423,464 | 41,000 | 91,784 | 131,233 | 7,200 | 8,981 | 1,370 | 70,383 | 6 | 63 | 8 | ... |
| 1913 . | 15,486,318 | 637,301 | 43,640 | 71,350 | 138,540 | 11,019 | 3,639 | 1,378 | 98,371 | 3,414 | 87 | 14 | ... |
| 1914 . | 15,727,681 | 555,672 | 38,189 | 146,505 | 135,518 | 19,873 | 4,400 | 1,576 | 167,800 | 3,008 | 45 | 34 | ... |
| 1915 . | 16,352,480 | 379,172 | 24,063 | 64,170 | 144,770 | 24,320 | 8,010 | 1,072 | 126,017 | 1,465 | 14 | 7 | 612 |
| 1916 . | 16,419,082 | 568,032 | 35,978 | 45,390 | 160,357 | 23,235 | 2,971 | 2,955 | 142,000 | 5,004 | 68 | 7 | 1,362 |
| 1917 . | 17,326,384 | 497,052 | 35,800 | 83,340 | 153,542 | 21,091 | 20,106 | 3,066 | 178,303 | 17,266 | 162 | ... | 1,281 |
| 1918 . | 19,347,039 | 415,387 | 51,572 | 181,461 | 168,512 | 19,916 | 3,619 | 3,600 | 115,800 | 24,030 | 602 | 3 | 1,160 |
| 1919 . | 21,759,727 | 420,194 | 41,063 | 166,810 | 174,974 | 11,191 | 32,760 | 2,905 | 101,322 | 14,007 | 701 | 24 | 753 |
| 1920 . | 17,082,711 | 582,636 | 44,668 | 161,340 | 181,092 | 12,645 | 22,107 | 1,723 | 140,472 | 23,123 | 1,046 | 126,008 | 2,870,505 |
| 1921 . | 18,358,934 | 284,254 | 20,470 | 281,252 | 123,084 | 10,108 | 32,560 | 894 | 286,100 | 27,727 | 1,032 | 144,090 | 3,555,640 |

Table No. 5.

The following table shows the amount of coal raised, the average number of persons working daily and the death-rates during the years 1912 to 1921 in respect of coal mines under the Indian Mines Act, 1901 :—

| YEAR. | Amount of coal raised. | Average number of persons working daily below and above ground. | Number of deaths below and above ground. | DEATH-RATES | |
|------------|---------------------------|--|--|-------------------------------|---|
| | | | | Per 1,000,000 tons raised. | Per 1,000 per- sons working daily below and above ground. |
| 1912 . . . | 14,044,368 | 121,392 | 157 | 11.17 | 1.29 |
| 1913 . . . | 15,486,318 | 193,042 | 185 | 11.95 | 1.39 |
| 1914 . . . | 15,727,681 | 137,851 | 145 | 9.23 | 1.05 |
| 1915 . . . | 16,352,480 | 145,537 | 166 | 10.15 | 1.14 |
| 1916 . . . | 16,419,082 | 143,459 | 169 | 10.20 | 1.18 |
| 1917 . . . | 17,326,384 | 153,688 | 168 | 9.41 | 1.06 |
| 1918 . . . | 19,347,039 | 176,269 | 197 | 9.98 | 1.12 |
| 1919 . . . | 21,759,727 | 190,052 | 260 | 11.95 | 1.37 |
| 1920 . . . | 17,082,711 | 175,943 | 172 | 10.07 | 0.98 |
| 1921 . . . | 18,358,934 | 190,647 | 257 | 13.99 | 1.35 |

APPENDIX II.
ACCIDENTS IN MINES.

Table No. I.

List of fatal accidents in mines regulated by the Indian Mines Act, 1901, during the year 1921.

| 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 OF FIRE-DAMP—(16 deaths). | | | | | | |
| 1 | 28th January, 11 A.M. | Khost mine, Khost P. O., Baluchistan. | North Western Railway | (1) Nabi, (m.), 28, (2) Muhammad, (m.), 44, <i>Stone-cutters.</i> | Coal | One of the two deceased opened a locked safety-lamp in the face of a dip gallery, and caused the ignition of a small accumulation of fire-damp. Both men were severely burnt. Nabi was killed and Muhammad died after two days. Another man was slightly burnt and recovered. |
| 2 | 28th February, 2-30 P.M. | Amlabad mine, Jamadoba P. O., Bihar and Orissa. | Eastern Coal Co., Ltd. | (1) Ahadali Meah, (m.), 33, (2) Heman Meah, (m.), 40, (3) Jumon Meah, (m.), 32, (4) Sukor Meah, (m.), 27, (5) Deva Tamli, (m.), 22, (6) Bishun Sing, (m.), 28, (7) Madari Meah, (m.), 26, (8) Chitamon Gope, (m.), 24, (9) Jaggunnath Rajwar, (m.), 40, (10) Pairag Rajwar, (m.), 42, (11) Bebari Rajwar, (m.), 36, <i>Stone-cutters.</i> | Coal | Whilst the deceased were at work at the bottom of a sinking shaft, 152 feet deep, an explosion of fire-damp occurred. They were so severely burnt that they all died within two days. Inspection and inquiry made. (<i>See Report, page 8.</i>) |
| 8 | 23rd March, 1 P.M. | Victoria mine, Kulti P. O., Bengal. | New Beerbhun Coal Co., Ltd. | Roni Korah, (m.), 28, <i>Coal-cutter.</i> | Coal | Deceased, carrying an open lamp, entered a gallery and ignited an accumulation of fire-damp. He was severely burnt and died eight days later. Inspection and inquiry made. (<i>See Report, page 9.</i>) |

APPENDIX II—cont d.

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. |
|---|----------------------------|---|---------------------------------------|---|--------------------------|---|
| EXPLOSIONS OF FIRE-DAMP—concl'd. | | | | | | |
| 4 | 26th September, 10 A.M. | Satpukuria Kristoganj mine, Kalipahari P. O., Bengal. | Jagmohan Ramjibon Marwari. | Seik Bekab Ali, (m.), 30, Coal-cutter. | Coal | Deceased and two other persons entered an unventilated gallery, and ignited a small accumulation of fire-damp with an open light. Deceased sustained serious burns about the body to which he succumbed seven days later. The other two persons were slightly burnt. Inspection and inquiry made. |
| FALLS OF ROOF AND SIDES. | | | | | | |
| (a) Falls of roof—(81 deaths). | | | | | | |
| 5 | 8th January, 4 A.M. | Katras mine, Katrasgarh P. O., Bihar and Orissa. | Barrakur Coal Co., Ld. | Chotan Meah, (m.), 35, Coal-cutter. | Coal | Deceased, with three other miners, went to work in a mine before the sirdar had made his examination. He commenced cutting coal in a gallery and was killed instantly by a mass of roof stone, 12' x 10' x 8', which fell from a height of 6 feet. Inspection and inquiry made. (See Report, page 9.) |
| 6 | 26th January, 8-30 P.M. | Ekra Khas, Bansjora P. O., Bihar and Orissa. | Maharaja of Cossimbazar. | Budhon Bhuiya, (m.), 22, Coal-cutter. | Coal | Deceased was standing on the top of a barrel, and cutting side coal when a mass of roof coal, 7' x 5' x 2', fell from a height of 11 feet from two "slips" in the roof. He was killed instantly. Inspection and inquiry made. |
| 7 | 26th January, 8-45 P.M. | Ledo Valley (Old West mine), Margherita P. O., Assam. | Assam Railways and Trading Co., Ld. | Rahamat Makrani, (m.), 28, Labourer. | Coal | Deceased was loading coal in an underground chamber when a mass of stone weighing about 10 cwts., fell on him from a height of 25 feet inflicting injuries from which he died 2 hours later. Inspection and inquiry made. |
| 9 | 27th January, 9 A.M. | Hermyingyi mine, Tavoy P. O., Burma. | The Burma Finance and Mining Co., Ld. | Lam Hoo, (m.), 28, Tribute miner. | Wolfram | Whilst deceased was engaged in barring down rock in the face of a drive a fall of roof and side took place. He sustained fatal injuries. Inspection and inquiry made. |
| 9 | 12th February, 5-30 A.M. | Kustore South mine, Kusunda P. O., Bihar and Orissa. | Raneegunge Coal Association, Ld. | (1) Mahabir Meah, (m.), 45, (2) Bhunsi Meah, (m.), 50, (3) Lukan Manjhi, (m.), 25, Coal-cutters. | Coal | Whilst deceased with a number of other miners was engaged in extracting a pillar, the roof collapsed, over an area of 47' x 60' to a height of 30 feet. The pillar was crushed and the deceased entombed. Their bodies could not be recovered. Inspection and inquiry made. (See Report, page 10.) |
| 10 | 17th February, 12-30 P.M. | Ledo Valley mine, Margherita P. O., Assam. | Assam Railways & Trading Co., Ld. | (1) Deonarayan, (m.), 25, Labourer; (2) Sarup Sing Rai, (m.), 25, "Opening-man." | Coal | Whilst persons were loading coal in an "opening" or chamber a mass of some 15 tons of coal fell without warning from a fault plane 12 feet above. Deonarayan was killed instantly. Sarup Singh Rai sustained injuries to which he succumbed seven weeks later. Another man was severely injured. Inspection and inquiry made. |

| | | | | | | |
|----|---------------------------|---|---|---|---------|--|
| 11 | 25th February, 1 A.M. | Kalonta mine, Tavoy P. O., Burma. | Burma Finance and Mining Co., Ltd. | Hon Kyan, (m.), 27, <i>Miner.</i> | Wolfram | Deceased with other coolies had, contrary to orders, gone to work at night in an adit which was being re-timbered. He was buried by a fall of earth and suffocated. Inspection and inquiry made. |
| 12 | 1st March, 2 P.M. | Namdang mine, Marzherita P. O., Assam. | Assam Railways and Trading Co., Ltd. | Hanuman Sing, (m.), 30, <i>Labourer.</i> | Coal | Deceased was assisting in drilling shot holes in an underground chamber when a mass of coal fell upon him from the roof at a height of 10 feet. He was killed instantly. Inspection and inquiry made. |
| 13 | 5th March, 1-30 P.M. | Jamadoba mine, Jamadoba P. O., Bihar and Orissa. | Tata Iron and Steel Co., Ltd. | Kalla Kora, (f.), 17, <i>Coal-carrier.</i> | Coal | Deceased went through a fence and, whilst loading loose coal on the edge of a goaf, was killed instantly by a mass of roof stone, 12' x 16' x 1'9", which fell from a height of 7½ feet. Inspection and inquiry made. |
| 14 | 11th March, 1 P.M. | Malkera mine, Katrasgarh P. O., Bihar and Orissa. | Tata Iron and Steel Co., Ltd. | (1) Bhukan Banis, (m.), 26, <i>Stone-cutter</i> ; (2) Tikon Panday, (m.), 28, <i>Miners' Sirdar.</i> | Coal | While the roof was being dressed at the junction of two roads a fall of stone, measuring 15' x 15' x 3' thick, occurred. The deceased was killed on the spot and four other persons received slight injuries. Inspection and inquiry made. |
| 15 | 11th March, 1-30 P.M. | North Bararee mine, Jharia P. O., Bihar and Orissa. | North Bararee Coal Co. | Bonu Mullick, (m.), 32, <i>Coal-cutter.</i> | Coal | Deceased was killed by a fall of roof, weighing about 1½ tons, which fell without warning from a concealed "slip" in the roof. Inspection and inquiry made. |
| 16 | 16th March, 10-30 A.M. | Nilaripathra mine, Jharia P. O., Bihar and Orissa. | N. M. Choudhury & Co. | Dhani Dossad, (m.), 38, <i>Coal-cutter.</i> | Coal | Deceased left the part of the mine in which he had been told to work and passing through a fence went to another part, without orders, and with the intention of robbing coal from the side. A block of roof coal, 11 feet x 5½ feet x 5½ feet, fell upon him from a height of 9 feet, killing him instantly. Inspection and inquiry made. |
| 17 | 20th March, 4 P.M. • | Jhakorkot mine, Dhak P. O., Panjab. | Northern India Coal Co. | Zaman, (m.), 45, <i>Coal-cutter.</i> | Coal | Deceased, whilst working in a "long wall" face, was killed by a mass of roof stone, 8' x 1' 6" x 9", which fell between two chocks in his working place. Inspection and inquiry made. |
| 18 | 23rd March, 5 P.M. | Singrah mine, Mohuda P. O., Bihar and Orissa. | Singrah Coal Co., Ltd. | Khudu Mohato, (m.), 40, <i>Coal-cutter.</i> | Coal | Deceased with a female carrier went through a fence and commenced to rob a pillar when a mass of stone and coal, measuring 6' 6" x 7' x 2', thick, fell from a height of 7 feet. He was killed instantly and the woman received severe injuries. Inspection and inquiry made. |
| 19 | 25th March, 9 A.M. | Hermyingyi mine, Tavoy P. O., Burma. | Burma Finance and Mining Co., Ltd. | Quan Fatt, (m.), 40, <i>Tribute Miner.</i> | Wolfram | Whilst engaged in barring down rock from the face of a working deceased was struck by falling rock. He sustained a compound comminuted fracture and died eleven days later. |
| 20 | 31st March, 1-30 P.M. | Ena mine, Jharia P. O., Bihar and Orissa. | North-West Coal Co., Ltd. | Monda Chamar, (m.), 30, <i>Coal-cutter.</i> | Coal | While deceased was employed in extracting a pillar he was killed by a mass of roof coal, measuring 10' x 10' x 3' 6", which fell from a height of 8 feet. Inspection and inquiry made. |
| 21 | 2nd April, 1-30 P.M. | Bestacolla mine, Jharia P. O., Bihar and Orissa. | New Beerbhun Coal Co., Ltd. | Sreecharan Chamar, (m.), 88, <i>Coal-cutter.</i> | Coal | Deceased was standing on a ladder boring a shot hole when a mass of roof coal, measuring 24' x 8' x 4', against which the ladder was placed, fell, taking the ladder and deceased with it. He was killed instantly. Inspection and inquiry made. |
| 22 | 28th April, 3 A.M. | Nandi mine, Jamuria F. O., Bengal. | Adjai Coal Co., Ltd. | Mongal Kahar, (m.), 42, <i>Timber mistry.</i> | Coal | Whilst deceased was assisting to withdraw a prop from a goaf area an extensive fall of roof occurred. He was buried by the fall, and his body could not be recovered. 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. |
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| FALLS OF ROOF AND SIDES—contd. | | | | | | |
| (a) Falls of roof—contd. | | | | | | |
| 23 | 1st May, 12-10 P.M. | Jotejanaki mine, Toposi P. O., Bengal. | P. K. Chatterji & Bros. | Pani Mejhian, (f.), 35, Coal-carrier. | Coal | Deceased and another woman went through a fence into a disused gallery, and whilst they were loading coal there a piece of shale, weighing about half a ton, fell upon them from a height of 13 feet. Deceased was killed instantly and her companion injured slightly. Inspection and inquiry made. |
| 24 | 3rd May, 11 P.M. | Loi-An central mine, Kalaw P. O., Southern Shan States, Burma. | Coalfields of Burma, Ltd. | Hema Lal, (m.), 30, Coal-cutter. | Coal | Whilst at work in the bottom of a sinking shaft, 26 feet deep, deceased was killed by a fall of stone from the roof. The shaft was timbered, but the stone fell from a "ship" at a joint below the timbering. |
| 25 | 12th May, 8 A.M. | Ballarpur mine, Ballarpur P. O., Central Provinces. | Sir K. C. Daga and others. | Kuthur Balla, (m.), 38, Trammer. | Coal | A mass of coal, 3' x 1' 6" x 1', fell without warning from the roof at a height of 11 feet at a point where two tram roads, 12 feet wide, met. Deceased, who was tramping a tub along the road at the time, was struck down and killed instantly. Inspection and inquiry made. |
| 26 | 17th May, 12-30 A.M. | Chanch mine, Chirkunda P. O., Bihar and Orissa. | Bengal Coal Co., Ltd. | Bipan Lohar, (m.), 40, Coal-cutter. | Coal | Deceased left his appointed working place, and began to cut coal from the side of a pillar. A mass of coal, measuring 9' x 4' 6" x 1' 6", fell upon him from the side, causing injuries from which he died instantly. Inspection and inquiry made. |
| 27 | 18th May, 4 A.M. | Mohpani mine, Mohpani P. O., Central Provinces. | Great Indian Peninsula Railway Co. | Phola <i>alias</i> Birbal Gond, (m.), 14, Coal-carrier. | Coal | Deceased went to sleep in a refuge hole on an underground road, and was killed by a mass of coal, 3' 3" x 2' 3" x 1' 6", which fell from a concealed "slip" at a height of 7 feet. |
| 28 | 1st June, 7 P.M. | Sor Range mine, Quetta P. O., Baluchistan. | North-Western Railway. | Ismail, (m.), 40, Coal-cutter. | Coal | Whilst carrying coal in an underground gallery, deceased was killed by a fall of roof. |
| 29 | 3rd June, 4 A.M. | Huntodih mine, Mohuda P. O., Bihar and Orissa. | Huntodih Coal Co., Ltd. | Kamini Harin, (f.), 22, Coal-carrier. | Coal | Deceased was loading coal in a gallery 9 feet high, when a mass of stone 11' x 5' x 14", falling from the convergence of two concealed "slips" in the roof, struck her, killing her instantly. Inspection and inquiry made. |
| 30 | 8rd June, 9-30 A.M. | Namdang mine, Margherita P. O., | Assam Railways and Trading Co., Ltd. | Badal Khatick, (m.), 41, Labourer. | Coal | Whilst deceased was loading coal in an "opening" or chamber he was killed by a mass of coal, weighing about 2 cwt., which fell without warning from the roof 20 feet above. Inspection and inquiry made. |

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| 31 | 5th June, 10 P.M. | Malkera mine, Katrasgarh P. O., Bihar and Orissa. | Tata Iron & Steel Co., Ld. | (1) Ramgulam Noonia, (m.), 26; (2) Deshi Noonia, (m.), 22, <i>Coal-cutters.</i> | Coal | The two deceased broke down a fence and entered a disused gallery, apparently for the purpose of robbing coal from the sides of pillars. An area of roof stone, 20' x 20' x 4", fell from a height of 8 feet 6 inches, killing one instantly and fatally injuring the other. Inspection and inquiry made. |
| 32 | 9th June, 5 A.M. | Jamadoba mine, Jamadoba P. O., Bihar and Orissa. | Tata Iron & Steel Co., Ld. | Jiban Korah, (m.), 33, <i>Sirdar.</i> | Coal | Deceased and three other miners had been withdrawn from their working place by a Sirdar on account of the roof being dangerous. While the sirdar was absent arranging for timber, deceased went back to get his pick when an area of roof stone, 12' x 7' x 18" thick, fell from a height of 8 feet. He was killed instantly. Inspection and inquiry made. |
| 33 | 2nd June, 2-30 P.M. | Katras mine, Katrasgarh P. O., Bihar and Orissa. | Burrakur Coal Co., Ld. | Khedan Teli, (m.), 23, <i>Coal-cutter.</i> | Coal | Deceased was casting back coal from a point a short distance behind his working face when a block of roof stone, 6' x 3' x 1' 6" thick, fell out at a "slip" and injured him so seriously that he died about 3 hours afterwards. Inspection and inquiry made. |
| 34 | 27th June | Hermyingyi mine, Tavoy P. O., Burma. | Burma Finance and Mining Co., Ld. | See To Hoi, (m.), 30, <i>Labourer.</i> | Wolfram | Deceased, unknown to any one and probably with the intention of stealing ore, went into an adit. He was killed by a fall of roof. Inspection and inquiry made. |
| 35 | 20th June, 2 A.M. | Noonodih mine, Jamadoba P. O., Bihar and Orissa. | The Bengal Iron Co., Ld. | Balni Mahato, (m.), 40, <i>Coal-cutter.</i> | Coal | Deceased while extracting a pillar in a coal seam, 8 feet thick, was killed by a mass of coal, 16' x 8'—12' x 1' thick, and weighing 5 tons, which fell from the roof near a small "fault." Inspection and inquiry made. |
| 36 | 6th July, 1 P.M. | Sikdardih mine, Giridih P. O., Bihar and Orissa. | Bayra Coal Association | (1) Gondo Dhobi, (m.), 50, <i>Stone-cutters' Sirdar</i> ; (2) Daho Dhobi, (m.), 40, <i>Stone-cutter.</i> | Coal | The two deceased were employed in getting down unsound roof stone in an underground gallery. They were breaking up some stone which they had just ripped down when they were struck down by a mass of stone measuring 4' x 1' 6" x 1' 6", which fell from a "slip" in the roof, 9 feet above. Gondo was killed on the spot, and Daho died shortly afterwards. Inspection and inquiry made. |
| 37 | 7th July, 6-16 A.M. | Ekra mine, Bansjora P. O., Bihar and Orissa. | Maharajah of Cossimbazar | (1) Sibdol Mahato, (m.), 36; (2) Sukar Mahato, (m.), 32; (3) Poona Mahato, (m.), 27, <i>Coal-cutters.</i> | Coal | One of the deceased went through a fence into a goaf to load some fallen coal. A fall of roof coal took place which pinned him down. The other two went to his rescue, but a further fall of 10 tons of coal occurred, completely burying the three men. Inspection and inquiry made. (See Report, page 10.) |
| 38 | 14th July, 2 P.M. | Gararia mine, Kusunda P. O., Bihar and Orissa. | Gopiram Ram Chandra | Ganesh Bhuiya, (m.), 35, <i>Coal-cutter.</i> | Coal | Deceased was standing on a stool and cutting roof coal in a gallery 7 feet high, when a block, 7' x 5' x 3½' thick, fell off at a "slip". Although he was to one side yet the stool was knocked over, and some of the coal fell upon his head and shoulders, killing him instantly. Inspection and inquiry made. |
| 39 | 16th July, 11-30 A.M. | Kondwadih mine, Koirah Section, Kusunda P. O., Bihar and Orissa. | The East Indian Coal Co., Ld. | Paran Chamar, (m.), 35, <i>Sirdar.</i> | Coal | Deceased was a sirdar in charge of miners engaged in extracting a pillar. He went into a part which was fenced off and where there was fallen coal lying. Whilst he was testing the roof with a stick a piece of roof coal, 8 feet in diameter and 3 feet thick, fell on him from a height of 12 feet. He received injuries from which he died a few hours later. Inspection and inquiry made. |

APPENDIX II—contd.

Fatal Accidents, 1921—contd.

| Serial num. | 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. |
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| FALLS OF ROOF AND SIDES—contd. | | | | | | |
| (b) Falls of roof—contd. | | | | | | |
| 40 | 17th July, 5 A.M. | Janchari mine, Searsale P. O., Bengal. | Srimati Nistarini Dassi | (1) Matala Manjhi, (m.), 26; (2) Subda Manjhi, (m.), 25; (3) Pochu Manjhi, (m.), 30, Coal-cutters. | Coal | The deceased passed through a fence in order to obtain some loose coal on the goaf side of a pillar under extraction. A mass of roof coal, 7½' × 6' × 3', fell from a height of 15 feet, killing two men outright, and injuring three others, one of whom died within an hour. Inspection and inquiry made. |
| 41 | 20th July, 11-30 P.M. | Dongar Chickli mine, Parasia P. O., Central Provinces. | Central Pesh Coal Co., Ld. | Goreyral Goalia, (m.), 28, Timberman. | Coal | Deceased was one of six timbermen who were repairing the roof on a haulage road at a point where a fall had taken place. Whilst so engaged another fall of roof took place, and the deceased was buried under the debris. Death was due to shock and suffocation. Inspection and inquiry made. |
| 42 | 22nd July, 7-30 A.M. | Jealgora mine, Jamadoba P. O., Bihar and Orissa. | East Indian Coal Co., Ld. | Gurbari Telini, (f.), 25, Coal-carrier. | Coal | A piece of roof coal, about 8' × 5' × 1', fell from a height of 7½ feet, and, striking deceased, who was passing under it at the moment, killed her on the spot. Inspection and inquiry made. |
| 43 | 27th July, 5-0 A.M. | Jotejanaki mine, Toposi P. O., Bengal. | P. K. Chatterji & Bros. | Purna Mashu Bhar, (m.), 35, Coal-cutter. | Coal | Deceased, with two other miners, was employed in a dispillaring district, and was undercutting a pillar when a slab of stone, 7' × 4' × 6", fell from a height of 11 feet, killing him instantly. Inspection and inquiry made. |
| 44 | 28th July, 4 P.M. | South Govindpur mine, Katrasgarh P. O., Bihar and Orissa. | South Govindpur Colliery, Ld. | Monger Meah, (m.), 20, Labourer. | Coal | Deceased was employed in a district where pillars in a seam, 5 feet thick, were being extracted. In throwing down two props which he had been carrying he knocked out another prop and brought about a fall of roof stone, 6' × 2' × 6", which killed him instantly. Inspection and inquiry made. |
| 45 | 9th August, 4 A.M. | Ledo Valley (New West) mine, Margherita P. O., Assam. | Assam Railways Trading Co., Ld. and | Maundai Chetri, (m.), 25, "Opening man." | Coal | Deceased was working in an underground chamber when a piece of coal, 3' × 2' 6" × 1', fell from a height of 7 feet, killing him instantly. Inspection and inquiry made. |
| 46 | 12th August, 2 P.M. | Nandi mine, Nandi P. O., Bengal. | Adjai Coal Co., Ld. | Mohar Chamar, (m.), 42, Coal-cutter. | Coal | Deceased was engaged in cutting coal on the corner of a pillar. Some roof coal fell in an adjoining goaf, and he passed through a fence to pick it up, when a piece of shale, 2' 6" × 2' × 9", fell on to him from a height of 17 feet. He sustained serious injuries and died a fortnight later. Inspection and inquiry made. |

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| 47 | 25th August, 9-30 A.M. | Seebpore mine, Charanpur P. O., Bengal. | Katras Jheriah Coal Co., Ld. | (1) Suphal Manjhi, (m.), 31; (2) Dasu Manjhi, (m.), 25; (3) Suka Manjhi, (m.), 23; (4) Bhatoo Kole, (m.), 14, <i>Coal-cutters.</i> | Coal | Three of the deceased were engaged in cutting roof coal near the edge of a large goaf when it came on 'weight.' A mass of roof coal, weighing about 30 tons, was released from between two parallel "slips," and fell suddenly from a height of 12 feet on to the deceased, two of whom were killed instantly. Another coal-cutter who was passing was killed on the spot, and Suphal Manjhi sustained serious injuries to which he succumbed two hours later. Inspection and inquiry made. (<i>See Report, page 11.</i>) |
| 48 | 2nd September, 8-30. | Ledo Valley (Old West) mine, Margherita P. O., Assam. | Assam Railways and Trading Co., Ld. | Charsomboy, (m.), 35, <i>Coal-tanner.</i> | Coal | Deceased was working in an underground gallery when a piece of coal, weighing about one ton, fell from the roof at a height of 6 feet, killing him instantly. Inspection and inquiry made. |
| 49 | 12th September, 2 P.M. | Kantapahari mine, Assanul P. O., Bengal. | The Burrakur Coal Co., Ld. | Thakur Manjhi, (m.), 34, <i>Coal-cutter.</i> | Coal | Deceased and another miner left their working place and commenced to cut coal from the side of a pillar on a main level, when a piece of stone, weighing about 2 cwt. and measuring 3' x 1' x 9", fell on deceased from a height of 9 feet. He sustained serious injuries to which he succumbed a few hours later. Inspection and inquiry made. |
| 50 | 15th September, 8-30 A.M. | Damudapur mine, Nandi P. O., Bengal. | The Bengal Coal Co., Ld. | Lokhoo Manjhi, (m.), 25, <i>Coal-cutter.</i> | Coal | Three coal-cutters were engaged in extracting a pillar in a coal seam, 8 feet thick. Deceased after cutting the coal sat under the newly exposed roof, when a triangular piece of stone, measuring 5' x 3' x 8" to 2" and weighing about 12 cwt., fell on him from a height of 5 feet. He sustained serious injuries to which he succumbed half-an-hour later. Inspection and inquiry made. |
| 51 | 15th September, 3-30 P.M. | Sendra mine, Bansjora P. O., Bihar and Orissa. | Sendra Coal Co., Ld. | (1) Nayan Manjhi, (m.), 26; (2) Jugal Manjhi, (m.), 28; (3) Choorki Mejhian, (f.), 16, <i>Coal-carriers.</i> | Coal | The deceased left the gallery in which they had been told to work by the sirdar and went into a disused gallery the entrance of which was fenced. Whilst they were robbing coal from the side a mass of stone, weighing about 7 tons, and measuring 10' x 6' 6" x 3' 6", fell from between two 'slips' in the roof at a height of 10 feet. They were killed instantly. Inspection and inquiry made. |
| 52 | 20th September, 4 A.M. | Ledo Valley (New East) mine, Margherita P. O., Assam. | Assam Railways and Trading Co., Ld. | Gonia Oria, (m.), 25, <i>Trammer.</i> | Coal | Deceased was working in an underground gallery when a piece of coal 4' x 3' 6" x 2', fell from a height of 5 feet, inflicting injuries from which he died an hour later. Inspection and inquiry made. |
| 53 | 1st October, 1-30 P.M. | Joba mine, Kalipahari P. O., Bengal. | Burrakur Coal Co., Ld. | Sukeo Kole, (f.), 25, <i>Coal-carrier.</i> | Coal | Deceased, inspite of being warned not to do so, walked under roof which was being dressed, when a piece of shale, measuring 5' x 3' x 9", and weighing 14 cwt., fell upon her from a height of 12 feet, killing her instantly. Inspection and inquiry made. |
| 54 | 19th October, 11-30 A.M. | South Bulliari mine, Kusunda P. O., Bihar and Orissa. | East Indian Coal Co., Ld. | Raman Chamarin, (f.), 45, <i>Coal-carrier.</i> | Coal | Deceased and two other women were sitting down at the junction of four roads waiting for their miners to come to work. A piece of shaley coal, measuring 10' x 4' x 1', fell from the roof 10 feet above. Deceased was killed instantly and the other two women were seriously injured. Inspection and inquiry made. |
| 55 | 20th October, 2-30 A.M. | Damudapur mine, Nandi P. O., Bengal. | The Bengal Coal Co., Ld. | Jales Mejhian, (f.), 20, <i>Labourer.</i> | Coal | Deceased was working in an underground gallery when a portion of the roof, weighing about 35 cwt., fell from a height of 12 feet, killing her instantly. 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. |
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| FALLS OF ROOF AND SIDES—concl'd. | | | | | | |
| (a) Falls of roof—concl'd. | | | | | | |
| 56 | 28th October, 10 A.M. | Kongon mine, Kongon P. O., Assam. | Nazira Coal Co., Ltd. | Gopal Ghatwall, (m.), 35, Trammer. | Coal | Deceased was working in an underground gallery, when a piece of stone, 3' x 1' 6" x 1', fell on him from a height of 7 feet, inflicting injuries from which he died almost immediately. Inspection and inquiry made. |
| 57 | 1st November, 8 P.M. | Sendra mine, Bansjora P. O., Bihar and Orissa. | Sendra Coal Co., Ltd. | Lakoo Turi, (m.), 24, Coal-cutter. | Coal | Deceased was dressing down some overhanging coal, when a piece of coal, 4' x 3' x 18', weighing about ½ ton, fell unexpectedly from a height of 6 feet. He was struck on the forehead and killed instantly. Inspection and inquiry made. |
| 58 | 6th November, 12 A.M. | Hermyingyi mine, Tavoy P. O., Burma. | Burma Finance and Mining Co., Ltd. | Mun Key Atin, (m.), 32, Tribute miner. | Wolfram | Whilst deceased was engaged in timbering a tunnel he was killed by a fall of roof. Inspection and inquiry made. |
| 59 | 18th November, 5 A.M. | Dumarkunda mine, Chirkunda P. O., Bihar and Orissa. | Bengal Coal Co., Ltd. | (1) Lakhoo Bhuya, (m.), 30; (2) Ram Lal Bauri, (m.), 21, Prop-setters; (3) Bhabhi Baurin, (f.), 19, Coal-carrier. | Coal | The three deceased went through a fence into a disused gallery. A mass of roof, 15' x 10' x 2', fell from a height of 6 feet, and buried them. They were killed instantly. Inspection and inquiry made. |
| 60 | 18th November, 10 P.M. | Haripur mine, Chora P. O., Bengal. | Baraboni Coal Concern, Ltd. | Budri Manjhi, (m.), 35, Coal-cutter. | Coal | Deceased passed through a fence and entered a disused underground gallery. A piece of coal, weighing 14 lbs., fell from a height of 10 feet, inflicting injuries to the right foot. He died of septic gangrene seven days later. Inspection and inquiry made. |
| 61 | 17th November, 6-45 P.M. | Bawdwin mine, Namtu P. O., Northern Shan States, Burma. | Burma Corporation, Ltd. | Pullaraj, (m.), 35, Labourer. | Lead ore | Whilst going into the mine through the main adit level deceased was struck by a fall of loose ground. He sustained a compound fracture of the right leg and died three months later. |
| 62 | 19th November, 12 noon. | Dharmaband mine, Katrangarh P. O., Bihar and Orissa. | D. N. Ghosh & Bros. | Ram Kissan Lodh, (m.), 25, Stone-cutter. | Coal | Deceased was engaged in removing debris at a point where the roof of an incline had been blasted down, to give increased height. A piece of stone, measuring 11' x 11' 5", fell upon him from a height of 6½ feet. He was killed instantly. Inspection and inquiry made. |
| 63 | 20th November, 1 P.M. | Namdang mine, Margherita P. O., Assam. | Assam Railway and Trading Co., Ltd. | Baiza Nath Koot, (m.), 35, Coal-filler. | Coal | Deceased was killed by the unexpected fall of a mass of roof coal, 30' x 14' x 7', in an "opening" or chamber. |

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| 64 | 30th November, 2 A.M. | Kurkurbaree mine, Giridih P. O., Bihar and Orissa. | East Indian Railway Co. | Kaila Manjhi, (m.), 22, Coal-cutter. | Coal | Deceased was apparently sleeping in his working place, when a mass of stone, 14' x 4' x 15', fell from a height of 6 feet. He was struck on the head, and died almost immediately. Inspection and inquiry made. |
| 65 | 7th December, 5 A.M. | Khost mine, Khost P. O., Balochistan. | North Western Railway | Ghulam, (m.), 40, Coal-cutter. | Coal | Deceased was driving a main level in a coal seam 5 feet thick, where 1½ feet of the shale roof was being taken down to make height. He undercut too far in the coal, and was killed by a fall of shale measuring 4' x 2½' x 1'. |
| 66 | 20th December, 5 A.M. | Ledo-Valley mine, Margherita P. O., Assam. | Assam Railways and Trading Co., Ltd. | Burga Bahadur, (m.), 21, Coal-puller. | Coal | Deceased was killed by a fall of coal from the roof of an "opening" or "chamber." |
| 67 | 24th December, 1-45 P.M. | Chanck mine, Chirkunda P. O., Bihar and Orissa. | Bengal Coal Co., Ltd. | Ramchand Mallick, (m.), 45, Coal-cutter. | Coal | Deceased was cutting coal from the roof of a gallery without orders, when a mass of coal, 7' x 7' x 2' 6", fell from a height of 7 feet 6 inches, on to him killing him instantly. Inspection and inquiry made. |
| 68 | 26th December, 1) A.M. | Borrea mine, Sitarampur P. O., Bengal. | New Beerbhun Coal Co., Ltd. | Budhai Abir, (m.), 25, Coal-cutter. | Coal | Deceased was testing the roof in an underground gallery when a mass of roof coal, weighing about 13 cwt., fell from a height of 12 feet, burying him and killing him instantly. Inspection and inquiry made. |
| (b) FALLS OF SIDES—(91 deaths). | | | | | | |
| 69 | 1st January, 5 P.M. | South Bellari mine, Kusunda P. O., Bihar and Orissa. | East Indian Coal Co., Ltd. | Sundri Mejhian, (f.), 56, Coal-carrier. | Coal | Deceased was loading a basket in her working place, when a block of side coal, weighing about 15 cwt., slipped down from the corner of a pillar and rolled over upon her, inflicting injuries from which she died 4 hours later. Inspection and inquiry made. |
| 70 | 19th January, 1 A.M. | Scrampur mine, Giridih P. O., Bihar and Orissa. | East Indian Railway Co. | Rupia Dusadhin, (f.), 35, Coal-carrier. | Coal | Deceased was loading coal near a pillar the side of which was supported by two sprags. The support proved to be insufficient, and a mass of side coal fell upon the deceased, causing fatal injuries. |
| 71 | 21st January, 9 P.M. | Kungkha mine, Namtu P. O., Northern Shan States, Burma. | Burma Corporation, Ltd. | Low Choo, (m.), 32, Labourer. | Iron ore | Deceased sustained fatal injuries by a fall of rock in a quarry. |
| 72 | 27th January, 2-16 P.M. | Gopalichuck Head mine, Jharis P. O., Bihar and Orissa. | Gopalichuck Coal Co., Ltd. | Kedar Kora, (m.), 30, Coal-cutter. | Coal | Deceased passed through a fence in a quarry and commenced to rob coal from the sides which were overhanging. A mass of coal and stone, measuring 3' 8" x 1' 6" x 30', fell from a height of 9 feet, killing him instantly. Inspection and inquiry made. |
| 73 | 29th January, 9 A.M. | East Bagdiggi mine, Jharis P. O., Bihar and Orissa. | East Bagdiggi Colliery Co. | (1) Robi Dhobi, (m.), 45; (2) Dukan Rajwar, (m.), 32; (3) Sadoo Ray, (m.), 25; Coal-cutters; (4) Poorki Rajwarin, (f.), 16; (5) Rosni Gorain, (f.), 18, Coal-carriers. | Coal | The deceased persons with seven others were engaged in cutting and carrying coal and stone in a quarry at the foot of an overhanging mass of roof stone and coal when a fall of stone and coal, 33' x 6' x 1' to 3 feet thick, suddenly occurred, killing them instantly. Inspection and inquiry made. (See Report, page 11.) |

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. |
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| (b) FALLS OF SIDES—contd. | | | | | | |
| 74 | 29th January, 5 P.M. | Bandarchooa mine, Mugma P. O., Bihar and Orissa. | S. N. Bose | Badi Koiri, (m.), 30, Coal-cutter. | Coal | Deceased was cutting coal in a quarry below some overhanging masonry which was resting on the top of a coal seam 30 feet thick. A piece of the masonry, measuring 6' x 3' x 2', fell from a height of 10 feet, killing him instantly. Inspection and inquiry made. |
| 75 | 20th February, 1-0 A.M. | Tikak Lower mine, Margherita P. O., Assam. | Assam Railways and Trading Co., Ltd. | Lalsing Lama, (m.), 26, Tub-filler. | Coal | Deceased was working in an underground chamber when a mass of coal, weighing about a ton and a half fell, from the side of a pillar. Deceased sustained injuries from which he died ten minutes later. Inspection and inquiry made. |
| 76 | 16th February, 7 A.M. | Bansdeopur mine, Kusunda P. O., Bihar and Orissa. | Bansdeopur Coal Co., Ltd. | Pilla Chamar, (m.), 36, Coal-cutter. | Coal | Deceased left his working place and went to a place about 200 feet distant, where he took down a fence and commenced cutting coal from the side of a gallery 24 feet high. A block of coal, about 10 feet high x 5' x 2' thick, fell off the side and injured him so seriously that he died within a few hours. Inspection and inquiry made. |
| 77 | 23rd February, 11 A.M. | Bhelatand mine, Sijua P. O., Bihar and Orissa. | Tata Iron & Steel Co., Ltd. | Sukar Turi, (m.), 28, Coal-cutter. | Coal | Deceased, with other miners, was extracting a pillar in a seam 6 feet high. He undercut the coal to a depth of 2' 9". with the result that a block of coal, measuring 2' x 1' 9" x 3' 6", fell on his head and killed him. Inspection and inquiry made. |
| 78 | 24th February, 1 P.M. | Bararee mine, Jamadoba P. O., Bihar and Orissa. | East Indian Coal Co. | Chuni Mejhian, (f.), 22, Coal-carrier. | Coal | The husband of deceased was robbing coal from the side of a pillar, and deceased was loading the coal. A mass of coal, 8' x 8' x 2', fell from the side of the pillar, deceased sustained injuries to which she succumbed within an hour. Inspection and inquiry made. |
| 79 | 19th March, 10 A.M. | Barora mine, Nowagarh P. O., Bihar and Orissa. | S. & J. Sarkar | Jungli Chamar, (m.), 22, Coal-cutter. | Coal | Deceased passed through a fence and went under some overhanging side coal either to steal soft coal or to shelter from the sun when a mass of coal, about 10' x 3' by 1½' thick, fell upon him from height of 6 feet, killing him instantly. Inspection and inquiry made. |
| 80 | 19th March, 11 A.M. | Khirsado mine, Pench P. O., Central Provinces. | H. Verma & Munshi Kanhaiya Lall. | Sukla Pardhan, (m.), 14, Labourer.. | Coal | Deceased undermined the side in a coal quarry, and was killed by a fall of overburden. |
| 81 | 21st March, 2 P.M. | Sodepur (8 pit) mine, Sitarampur P. O., Bengal. | Bengal Coal Co., Ltd. | Tolu Teli, (m.), 45, Stone-cutter. | Coal | Deceased was engaged in dressing down coal on the side of a gallery. A piece of coal, 3' x 2' 6" x 1' 3", broke away from two concealed "slips" at a height of 11 feet. Deceased was struck by the falling coal and sustained injuries to the leg which caused death three days later. Inspection and inquiry made. |

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| 82 | 25th March, 3-30 P.M. | Toktwe mine, Karathuri P. O., Burma. | Ma Kyon . . . | Law Pah, (m.), 28, <i>Labourer.</i> | Tin ore . | Whilst at work in an open excavation deceased was killed by a fall of rock from a dump. |
| 83 | 7-30 A.M. | Kurhurbaree mine, Giridih P. O., Bihar and Orissa. | E. I. Railway Co. . | Mangra Kole, (m.), 25, <i>Coal-cutter.</i> | Coal . | Deceased was employed in extracting a pillar of coal, 16 feet in height. There was a "slip" in the pillar and deceased had been told not to work in front of it, but to work from the end of the "slip." He disregarded these instructions and worked the coal parallel to the face of the "slip," with the result that a mass of coal, 5' x 5' x 3', came away and killed him. Inspection and inquiry made. |
| 84 | 30th March, 4 A.M. | Fularibad mine, Jharua P. O., Bihar and Orissa. | Fularibad Coal Co., Ld. . | Kodan Kurmi, (m.), 22, <i>Coal-cutter.</i> | Coal . | Deceased entered a fenced-off area to rob coal from the corner of a pillar. He set free at a "slip" a mass of coal, 6' x 5' x 3' thick, which fell upon him and killed him instantly. Inspection and inquiry made. |
| 85 | 31st March, 2-30 P.M. | Bagdi-gi mine, Jharua P. O., Bihar and Orissa. | C. J. Smith . . . | Phucha Manjbi, (m.), 35, <i>Coal-cutter.</i> | Coal . | Deceased was employed in cutting floor coal. He was robbing the corner of a pillar near his working place, when a mass of coal, weighing about 6 cwt., fell from a height of 11 feet. He received injuries from which he died next day. Inspection and inquiry made. |
| 86 | 8th April, 1-30 P.M. | Bokaro Jharua mine, Jamuniatand P. O., Bihar and Orissa. | Agarwalla Brothers . | Bishoo Roy, (m.), 28, <i>Coal-cutter.</i> | Coal . | Deceased was working in a coal quarry on the bank of a river where the roof of the coal seam consists of "weathered" rock which was overhanging. The upper portion of the coal seam was also overhanging. While he was loading coal a piece of coal, weighing about 80 lbs., fell upon him from a height of eighteen feet. He received injuries from which he died shortly after. Inspection and inquiry made. |
| 87 | 9th April, 7-15 A.M. | Bhulanbarari mine, Jamadoba P. O., Bihar and Orissa. | Bhulanbararee Coal Co., Ld. | Makhan Bauri, (m.), 26, <i>Coal-cutter.</i> | Coal . | Deceased was employed in quarrying pillars of coal formed originally by underground mining. While he was cutting the coal forming the roof of an old gallery the roof collapsed. He fell into the gallery below, and was killed instantly. Another coal-cutter received slight injuries. Inspection and inquiry made. (<i>See Report, page 12.</i>) |
| 88 | 14th April, 10-30 A.M. | Chinchuria mine, Asansol P. O., Bengal. | New Beerbhum Coal Co., Ld. | Banwari Kole, (m.), 20, <i>Pump attendant.</i> | Coal . | Deceased was working on a hand pump at the bottom of a cutting, twenty feet deep. A mass of earth, 34' x 17' x 4' 6", fell from the side without warning. Part of this earth fell on deceased killing him instantly. Inspection and inquiry made. |
| 89 | 16th April, 2 P.M. | Murwara mine, Katni P. O., Central Provinces. | Seth Tebmurus Cowasji . | Ratan Katwar, (m.), 40, <i>Contractor.</i> | Limestone . | Deceased was killed by a fall of side in a quarry. |
| 90 | 19th April, 6 P.M. | Karathuri mine, Mergui P. O., Burma. | Ma Me . . . | Sin Yu., (m.), 30, <i>Labourer.</i> | Tin ore . | Deceased was killed by a fall of side whilst at work in an open cut. |
| 91 | 25th April, 2 P.M. | Kachkuri mine, Ramtek P. O., Central Provinces. | Bansilal, Abirohand Mining Syndicate. | Wallombi, (m.), 40, <i>Labourer.</i> | Manganese ore. | Deceased was killed by a fall of overburden in an open working. Inspection and inquiry made. |
| 92 | 27th April, 10-30 P.M. | Loyabud mine, Banaajora P. O., Bihar and Orissa. | Burrakur Coal Co., Ld. . | Budhani Khuini, (f.), 28, <i>Coal-carrier.</i> | Coal . | Deceased was filling a basket at the face of a quarry when some soft coal, weighing about 3 cwt., fell off the face at a cleat from a height of about six feet. Her neck was broken and she died almost instantly. 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. |
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| (b) FALLS OF SIDES—contd. | | | | | | |
| 93 | 28th April, 6-30 A.M. | Mosaboni mine, Rakha mines P. O., Bihar and Orissa. | Cordoba Copper Co., Ltd. | Ram, Bhuiya, (m.), 18, <i>Labourer.</i> | Copper ore. | Deceased was killed by a fall of side in a prospecting shaft, twenty-five feet deep. Inspection and inquiry made. |
| 94 | 28th April, 2 P.M. | Katras mine, Katras P. O., Bihar and Orissa. | Burrakur Coal Co., Ltd. | Sona Manjhi, (m.), 14, <i>Coal-cutter.</i> | Coal. | While deceased was cutting coal from a barrier in a seam 9 feet 6 inches thick, he was killed by a mass of side coal, 18' x 9' x 9', which fell from a "slip." Inspection and inquiry made. |
| 95 | 10th May, 5-45 A.M. | Alkusa South mine, Kusunda P. O., Bihar and Orissa. | Ravigunge Coal Association, Ltd. | (1) Sanki Meah, (m.), 25, <i>Coal-cutter</i> ; (2) Anwari Meah, (m.), 18 ; (3) Parna, (f.), 15, <i>Coal-carriers.</i> | Coal. | Whilst the three deceased were sleeping in a gallery in the mine a mass of side coal, measuring 15' x 8', fell upon them from a height of 10 feet. They were killed instantly. Inspection and inquiry made. (<i>See Report, page 12.</i>) |
| 96 | 10th May, 2-30 P.M. | Bansdeopur mine, Kusunda P. O., Bihar and Orissa. | Bansdeopur Coal Co., Ltd. | (1) Barhan Roy, (m.), 35 ; (2) Etwari Roy, (m.), 25, <i>Coal-cutters.</i> | Coal. | The deceased, with another coal-cutter, against orders, went inside a fenced area where the timber had been withdrawn to allow the top coal to fall. While engaged in loading fallen coal a mass of coal, weighing from 60-70 tons, fell from a height of ten feet. Barhan was killed instantly and Etwari died 10 weeks later. The other man was severely injured. Inspection and inquiry made. |
| 97 | 10th May, 4-30 P.M. | Jamgram mine, Asansol P. O., Bengal | Burrakur Coal Co., Ltd. | Bhusan Kumar, (m), 28, <i>Coal-cutter.</i> | Coal. | Deceased had undercut the coal from the side of a quarry, leaving the overburden overhanging. About two tons of the overburden suddenly fell on to deceased, killing him instantly. Inspection and inquiry made. |
| 98 | 16th May, 11-30 A.M. | Sugi mine, Dumchanch P. O., Bihar and Orissa. | F. F. Chrestien & Co., Ltd. | Chito Kandoo, (m.), 25, <i>Labourer.</i> | Mica. | Deceased was employed in picking mica from a dump. He was buried by a mass of debris which fell from the side of a hole, 5 feet deep, excavated in the dump. Death was due to suffocation. Inspection and inquiry made. |
| 99 | 26th May, 3 P.M. | Khas Jharia mine, Jharia P. O., Bihar and Orissa. | Khas Jharia Colliery Co., Ltd. | Katkani Roy, (f.), 26, <i>Coal-carrier.</i> | Coal. | After attempting and failing by undercutting to bring down a large mass of coal from a "slip," deceased's husband commenced working on an adjacent pillar. Some time later while deceased was loading her basket a mass of coal, weighing about 3 tons, fell. Deceased received injuries from which she died three hours later. Inspection and inquiry made. |

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| 100 | 4th June, 7-30 P.M. | Bagdigri mine, Jharia P. O., Bihar and Orissa. | Villiers Limited | (1) Premu Gorai, (m.), 25, Coal-cutter; (2) Khetu Gorain, (f.), 22, Coal-carrier. | Coal | Whilst the two deceased were sitting down in a narrow gallery, 26 feet high, and waiting for the sinder to show them their working place a mass of some seven cwt. of coal fell from a "slip" in the side at a height of 20 feet. The woman was killed instantly, and the man received injuries from which he died some hours later. Inspection and inquiry made. |
| 101 | 5th June, 2-30 P.M. | Khasra No. 1219, mine, Katni P. O., Central Provinces. | Chakori Lal Pathak | Phuliya, (f.), 13, Labourer. | Limestone | A piece of limestone fell from a stack on the edge of a quarry, rolled to the bottom of the quarry, and killed deceased by striking her on the head. |
| 102 | 16th June, 10-30 A.M. | Real Kajora mine, Ondal P. O., Bengal. | Real Kajora Coal Co. | Kashi Nath Bauri, (m.), 33, Sinker. | Coal | Deceased was loading up debris which had fallen from a cavity in the side of a shaft. A mass of earth, weighing about 1½ tons, fell without warning from the cavity, and buried him. Death was caused by suffocation. Inspection and inquiry made. |
| 103 | 17th June, 2-30 P.M. | Karmatand mine, Nudkhurki P. O., Bihar and Orissa. | Sreeram Coal Co. | Bigon Manjhi alias Bondhn Manjhi, (m.), 40, Coal-cutter. | Coal | Deceased was robbing the corner of a pillar when a mass of coal, weighing about 3 tons, fell from a height of 10 feet. He was killed instantly. Inspection and inquiry made. |
| 104 | 18th June, 9-30 A.M. | Faridpore mine, Charanpur P. O., Bengal. | Poniat Coal Concern | Pana Bauri, (m.), 31, Coal-cutter. | Coal | Deceased was engaged in extracting a pillar of coal, 18 feet in height, and was levering coal from the side of the pillar, when a mass of coal, weighing about half a ton, fell over on to him, inflicting injuries from which he died on the following day. Inspection and inquiry made. |
| 105 | 23rd June, 5 P.M. | Northern mine, Nowagarh P. O., Bihar and Orissa. | Northern Coal Co., Ltd. | Ajnon Mahato, (m.), 35, Coal-cutter. | Coal | Whilst deceased was robbing the side of the gallery in which he worked, he was injured by a mass of coal which fell from a concealed "slip" at a height of 7 feet. He died three days later. Inspection and inquiry made. |
| 106 | 3rd July, 11 A.M. | Kalonta mine, Tavoy P. O., Burma. | Burma Finance and Mining Co., Ltd. | Lai Sein Sem, (m.), 35, Labourer. | Wolfram | Deceased was killed by a fall of side in an open working. |
| 107 | 5th July | Foley mine, (Lense No. 58), Sharich P. O., Baluchistan. | Baluchistan Coal Co., Ltd. | Sanedin, (m.), 25, Labourer. | Coal | Whilst deceased was assisting a carpenter to fix timbers for the support of an underground gallery, a fall of side took place. He was struck by the falling stone and sustained injuries which terminated fatally within the hour. |
| 108 | 14th July, 2-30 A.M. | Bhulanbararee mine, Jharia P. O., Bihar and Orissa. | The Bhulanbararee Coal Co., Ltd. | Mnlati Mejhian, (f.), 18, Coal-carrier. | Coal | Deceased was killed by a mass of coal, which fell without warning from the side of a gallery at a height of five feet. Inspection and inquiry made. |
| 109 | 15th July, 11-30 A.M. | Bhalgora mine, Jharia P. O., Bihar and Orissa. | The Bhalgora Coal Co., Ltd. | (1) Gangia Kaharin, (f.), 36; (2) Somia Kaharin, (f.), 40, Coal-carriers. | Coal | A miner was engaged in dressing down overhanging coal on the side of a pillar. The two deceased, contrary to orders and in spite of repeated warnings, went into the place to load coal. A mass of coal, 9' x 3' x 2', fell upon them killing them instantly. Inspection and inquiry made. |
| 110 | 21st July 10 A.M. | Ballarpur mine, Ballarpur P. O., Central Provinces. | Bissasardass Daga and M. B. Dadabhoy. | Samdhi Kistana, (m.), 40, Coal-cutter. | Coal | Whilst engaged in undercutting in preparation for blasting, deceased exposed an unsuspected "slip." A mass of coal fell upon him, killing him instantly. 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. |
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| FALLS OF ROOF AND SIDES—contd. | | | | | | |
| <i>(b) Falls of sides—contd.</i> | | | | | | |
| 111 | 22nd July, 12 noon. | Keshoram Satgram mine, Raniganj P. O., Bengal. | Keshoram Poddar & Co. | Malindu Bauri, (m.), 14, Labourer. | Coal | Deceased, with two other sinkers, was engaged in dressing down the sides of a sinking shaft, 46 feet deep, when a piece of coal, weighing about 3 cwt., fell from the side through a vertical distance of 2 feet. A prop, 11 feet long, which was standing on the bottom and leaning against the side of the shaft, was struck by the coal and overturned, striking the deceased on the head. He sustained injuries to which he succumbed on the following day. Inspection and inquiry made. |
| 112 | 29th July, 3 P.M. | South East Baraboni mine, Charampur P. O., Bengal. | Maharaja of Cossimbazar | Bhatar Manjhi, (m.), 27, Coal-cutter. | Coal | Deceased entered a fenced area at the edge of a goaf to obtain some fallen coal. A mass of coal, weighing about ten tons, fell away from the side of a dyke. A portion of the coal struck deceased and buried him. He was killed instantly. Inspection and inquiry made. |
| 113 | 7th August, 2 A.M. | Kendwadih mine, Kusunda P. O., Bihar and Orissa. | East Indian Coal Co., Ltd. | Haru Mesh, (m.), 32, Coal-cutter. | Coal | Deceased was engaged after blasting in dressing down overhanging coal in the lower portion of a coal seam when the coal suddenly came away in an unexpected direction and knocked him off his ladder. Some of the coal fell upon him killing him instantly. Inspection and inquiry made. |
| 114 | 6th August, 9-30 A.M. | Yemon mine, Mergui P. O., Burma. | Mergui Tin Dredging Co., Ltd. | Lee Joon Hteng, (m.), 60, Tribute-miner. | Tin ore | Deceased was killed by a fall of ground from the side of a "tailings" ditch. It was presumed that he had undermined the side whilst prospecting for ore. |
| 115 | 14th August, 2 A.M. | Joba mine, Kalipahari P. O., Bengal. | Burrakur Coal Co., Ltd. | Sew Lal Kurmi, (m.), 20, Coal-cutter. | Coal | Deceased was holding a light for a miner who was dressing loose coal from the side of a pillar. A piece of coal, 6' x 4' x 1' was levered down. In falling it broke into several large pieces. One piece rolled over pinning deceased by the leg. Deceased sustained injuries from which he died thirty-seven hours later. Inspection and inquiry made. |
| 116 | 19th August, 1 P.M. | Dhansar mine, Jharia P. O., Bihar and Orissa. | Dhansar Coal Co. | Agysin Chamur, (m.), 35, Coal-cutter. | Coal | Deceased left his working place, and passed through a fence into a disused part of the mine, and whilst robbing coal there he was killed by a mass of side coal, 8' x 7' x 1' 6," which fell away from a "slip." Inspection and inquiry made. |
| 117 | 23rd August, 3 P.M. | Rajhara mine, Rajhara P. O., Bihar and Orissa. | The Bengal Coal Co., Ltd. | Bhagawati Noonis, (m.), 30, Coal-cutter. | Coal | Deceased whilst robbing the side of a pillar was killed by a fall of side coal. |
| 118 | 29th August, 11-30 A.M. | Industry mine, Jharia P. O., Bihar and Orissa. | Industry Coal Co., Ltd. | Kasua Bauri, (m.), 21, Engine khalsi. | Coal | Deceased who was employed on the surface went underground and commenced to rob a pillar. He undercut the coal and caused a mass of coal, weighing 3 tons, to fall upon himself. He was killed instantly. Inspection and inquiry made. |
| 119 | 8th September, 3 P.M. | Bhulanbararee mine, Patherdih P. O., Bihar and Orissa. | Bhulanbararee, Coal Co., Ltd. | (1) Mangli Mejhian, (f.), 15; (2) Suki Mejhian, (f.), 14. | Coal | The deceased were carrying coal out of a quarry when the pathway subsided into an old gallery below. They were buried by the debris and when their bodies were recovered two hours later life was extinct. Inspection and inquiry made. (See Report, page 12.) |

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| 120 | 15th September, 2 A.M. | Bawdwin mine, Namtu P. O., Northern Shan States, Burma. | Burma Corporation, Ltd. | Kyan Si Ye, (m.), 30, <i>Miner.</i> | Lead ore | Whilst deceased was sleeping in a stope, he was killed by a mass of ore, weighing about 50 lbs., which fell from a height of 3 feet. Inspection and inquiry made. |
| 121 | 16th September, 1-30 P.M. | Pandeybera mine, Jharis P. O., Bihar and Orissa. | Burma Coal Co. | (1) Joran Kora, (m.), 40, (2) Kanai Kora, (m.), 32, <i>Coal-cutters</i> ; (3) Rodane Kora, (f.), 34; (4) Julia Kora, (f.), 25; (5) Kali Sardarin, (f.), 35, <i>Coal-carriers.</i> | Coal | The deceased were engaged in cutting and carrying coal from the floor of a gallery 35 feet in height when a mass of coal, weighing about 200 tons, fell from a "slip" on one side of the gallery. They were buried and killed instantly. Inspection and inquiry made. |
| 122 | 19th September, 10-30 A.M. | Kalonta mine, Tavoy P. O., Burma. | Burma Finance & Mining Co., Ltd. | Lee Htyain, (m.), 44, <i>Labourer.</i> | Wolfram | Whilst engaged in sluicing operations, deceased was killed by a fall of side in an open cut. |
| 123 | 21st September, 6-30 P.M. | North Goneshpur mine, Nowagarh P. O., Bihar and Orissa. | C. A. Forbes | (1) Dinoo Hari, (m.), 20; (2) Ramjoy Hari, (m.), 30, <i>Coal-cutters</i> ; (3) Rojony Harini, (f.), 16, <i>Coal-carrier.</i> | Coal | The deceased left their working places at the end of the shift, and went through a fence into old workings to rob coal. They had filled only two baskets when a mass of coal, 15' x 8' x 4', weighing 17 tons, fell from the side of a pillar. They were killed instantly. Inspection and inquiry made. |
| 124 | 23rd September, 6 A.M. | Jharis Khas mine, Jharis P. O., Bihar and Orissa. | Standard Coal Co., Ltd. | Moalla Loathe, (m.), 25, <i>Coal-cutter.</i> | Coal | While deceased was on a ladder taking down some loose overhanging coal, which remained after a shot had been fired, the ladder slipped and he fell to the ground. At the same time a piece of coal which he had been levering fell on top of him causing injuries from which he died 6 hours later. Inspection and inquiry made. |
| 125 | 23rd September, 12-30 P.M. | Benahir mine, Jharis P. O., Bihar and Orissa. | Standard Coal Co., Ltd. | Nisado Mallick, (f.), 16, <i>Coal-carrier.</i> | Coal | After a shot had been fired in the corner of a new gallery deceased was filling away the fallen coal when a mass of overhanging coal, weighing about 5 tons, fell on her. She received injuries from which she died a few hours later. Inspection and inquiry made. |
| 126 | 24th September, 6-55 A.M. | Kathe mine, Mogok P. O., Burma. | Burma Ruby Mines, Ltd. | Aik Ho, (m.), 26, <i>Labourer.</i> | Rubies | Deceased was killed by a fall of side in an open working. |
| 127 | 24th September, 11 A.M. | Datha mine, Jamai P. O., Central Provinces. | Mathura Prasad Motilall & Co. | Giansa (m.), 20, <i>Coal-cutter.</i> | Coal | Deceased attempted to undermine an irregular pillar of coal and stone in a quarry. A piece of stone, 3' x 2' x 2', fell upon him, causing fatal injuries. Inspection and inquiry made. |
| 128 | 1st October, Noon. | Suratar Sonalibad mine, Jharis P. O., Bihar and Orissa. | Ramjash Agarwala | Chamu Keot, (m.), 30, <i>Coal-cutter.</i> | Coal | A piece of coal, 4' x 1'8" x 1' fell from the side of a gallery from a height of 20 feet, and a portion of it struck deceased on the head and back causing injuries from which he died two hours later. 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. |
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| (b) FALLS OF SIDES—contd. | | | | | | |
| 129 | 2nd October, 10 A.M. | Awadaung mine, Mergui P. O., Burma. | J. F. Leslie | Bighor, (m.), 25, Labourer. | Tin ore | Deceased was killed by a fall of side in an open-cut. |
| 130 | 3rd October, 1 P.M. | Dhorakola mine, Ganwan P. O., Bihar and Orissa. | Banarasi Prosad Chowdhary. | (1) Bisni Turin, (f.), 14; (2) Chomni Turin, (f.), 12, Labourers. | Mica | The deceased were loosening and cleaning up debris at the foot of the side of a quarry, when a piece of schist, measuring 3' x 2' 6" x 1", fell from a "slip" from a height of 6 feet on to them. Bisni Turin was killed on the spot, and Chomni Turin sustained serious injuries to which she succumbed a few hours later. Inspection and inquiry made. |
| 131 | 20th October, 10-30 A.M. | Kalithan Suratar mine, Jharia P. O., Bihar and Orissa. | K. B. Seal & Sons | Jotsna Ghatwalin, (f.), 35, Coal-carrier. | Coal | While four women were loading coal which had been blasted down from a pillar under extraction, a mass of coal, 9' x 9' x 1' thick, fell from a "slip." Deceased was struck down and died immediately after being extricated. Another of the women received severe injuries. Inspection and inquiry made. |
| 132 | 9th November, 2 P.M. | Benahir mine, Jharia P. O., Bihar and Orissa. | The Standard Coal Co., Ltd. | Bhadi Baurin, (f.), 35, Coal-carrier. | Coal | Deceased worked in a pillar extraction area, and was filling a basket with coal, when a piece of coal, measuring 15" x 10" x 10", fell off the side of a pillar from a height of 20 feet and struck her on the head. She was killed instantly. Inspection and inquiry made. |
| 133 | 11th November, 4 P.M. | Khost mine, Khost P. O., Baluchistan. | North-Western Railway . | Feroz, (m.), 14, Propman. | Coal | Whilst deceased was engaged in timbering a long-wall face in a steeply inclined coal seam the floor of the seam slipped, carrying away the timber. Deceased fell into the goaf and was buried. He was suffocated. |
| 134 | 12th November, 11 A.M. | Acehalpur mine, Nandi P. O., Bengal. | Hariladih Coal Co., Ltd. . | Kaman Bauri, (m.), 32, Sinker. | Coal | Deceased was working in a pit bottom with 4 other persons when a triangular piece of stone, 2' x 3' to 6" x 3', fell from a "slip" in the side of the shaft about 12 feet from the bottom. He was struck on the head and killed instantly. Inspection and inquiry made. |
| 135 | 18th November, 1-30 P.M. | Budruchuck mine, Sijua P. O., Bihar and Orissa. | Budruchuck Coal Mining Co., Ltd. | Salga Manjhi, (m.), 30, Coal-cutter. | Coal | Deceased was engaged in cutting coal from the side of a pillar to permit of the straightening of a tram line. He undercut too far, and a wedge-shaped piece of coal, 8' x 6' x 2', weighing 1½ tons, fell upon him from a height of 9 feet. He received injuries from which he died 24 hours later. Inspection and inquiry made. |
| 136 | 25th November, 4-30 P.M. | Bararee mine, Jharia P. O., Bihar and Orissa. | East Indian Coal Co., Ltd. | (1) Rabni Korini, (f.), 15; (2) Nidu Baurin, (f.), 18, Coal-carriers. | Coal | The deceased were loading coal shortly after a shot had been fired. A piece of coal, 4' x 3' x 2', weighing 10 cwt., fell from a height of 16 feet, and rolling from the top of a heap of loose coal, struck the deceased, crushing them against the side of a pillar. One of the deceased was killed instantly, and the other died shortly afterwards. Inspection and inquiry made. |

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| 137 | 2nd December, 5-30 P.M. | Jeaigora No. 2 Pit, mine, Jamadoba P. O., Bihar and Orissa. | East Indian Coal Co., Ltd. | (1) Somar Meah, (m.), 16, Stone-cutter; (2) Madan Meah, (m.), 36, Sirdar. | Coal | The deceased were engaged in cleaning out the undercut made by a coal-cutter, when a mass of coal, 12' x 6' x 4', weighing 10 tons, fell from the side. The deceased were seriously injured and died two hours later. Inspection and inquiry made. |
| 138 | 12th December, 11 A.M. | Shampur mine, Niranchatti P. O., Bihar and Orissa. | S. B. Chatterjee | Rajo Gor, (f.), 30, Coal-carrier. | Coal | Deceased was working in an open cut, when a mass of earth, 8' x 2' x 2', fell upon her from a height of 3 feet. She sustained injuries to the head and died almost immediately. Inspection and inquiry made. |
| 139 | 23rd December, 12 noon. | Kalimati mine, Kamerdubi P. O., Bihar and Orissa. | Patel Bros. & Co. | Mirja Manjhi, (m.), 35, Coal-cutter. | Coal | Deceased and another miner were sitting under some overhanging coal at the side of a quarry when a mass of coal weighing about 10 cwt., fell from a height of 8 feet, inflicting injuries to deceased which proved fatal and minor injuries to the other man. Inspection and inquiry made. |
| 140 | 24th December, 4-50 P.M. | Kalythan Angarpathra mine, Katrasgarh P. O., Bihar and Orissa. | Mukberji and Dutt | Anachi Bhuiyan, (f.), 18, Coal-carrier. | Coal | Deceased was loading coal in a quarry, when a piece of coal, 4' x 2' x 1', fell from a height of 5 ft. She was fatally injured and died an hour later. Inspection and inquiry made. |

IN SHAFTS—(17 deaths).

IN SHAFTS—ROPES AND CHAINS BREAKING—
(7 deaths).

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| 141 | 5th August, 10-30 A.M. | Bhalgora mine, Jharis P. O., Bihar and Orissa. | Bhalgora Coal Co., Ltd. | (1) Bhadaï Shaw, (m.), 38; (2) Kajani Chamar, (m.), 14, Stone-cutters. | Coal | While a bucket containing water was being raised in a shaft, 365 feet deep, an overwind took place. The detaching hook acted, but the link attaching the bucket chains to the hook broke. The bucket dropped to the bottom where 8 persons were at work. The two deceased sustained fatal injuries. Inspection and inquiry made. |
| 142 | 12th August, 2 P.M. | Chanck mine, Chirkunda P. O., Bihar and Orissa. | Bengal Coal Co., Ltd. | (1) Mohan Kumar, (m.), 28; (2) Lochan Meah, (m.), 26, Sinkers. | Coal | The deceased were working at the bottom of a sinking shaft, 525 feet deep. Owing to the breaking of a winding rope, a loaded bucket fell a distance of 500 feet, killing Mohan instantly and inflicting injuries to Lochan from which he died a few hours later. Inspection and inquiry made. |
| 143 | 17th September, 4-30 A.M. | Chanck mine, Chirkunda P. O., Bihar and Orissa. | Bengal Coal Co., Ltd. | (1) Choa Hazra, (m.), 49; (2) Jhabon Hazra, (m.), 28, Sinkers. | Coal | The two deceased and seven other sinkers were working at the bottom of a sinking pit 540 feet deep. Water was being raised in a bucket. When 40 feet from the top the detaching hook failed and the bucket fell to the bottom and on to the deceased. Choa Hazra was killed instantly, and Jhabon Hazra sustained serious injuries to which he succumbed shortly after. Inspection and inquiry made. |
| 144 | 28th September, 8 P.M. | Hatgarooi mine, Sitarampur P. O., Bengal. | Burrakur Coal Co., Ltd. | Lakhan Kora, (m.), 30, Onsetter. | Coal | Whilst deceased was being lowered in a cage at a shaft, 200 feet deep, the winding rope broke and the cage, which was about 45 feet from the top of the shaft, fell to the bottom, killing him instantly. Inspection and inquiry made. |

IN SHAFTS—WHILST ASCENDING OR DESCENDING
BY MACHINERY—(1 death).

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| 145 | 22nd April, 11-15 A.M. | Phularitand mine, Katrasgarh P. O., Bihar and Orissa. | Phularitand Coal Co., Ltd. | Takoon Telli, (m.), 22, Sinker. | Coal | Whilst deceased was being raised in a sinking shaft, 85 feet deep, he lost hold of the rope and fell to the bottom, a distance of 25 feet. He received injuries from which he died a few hours later. Inspection and inquiry made. |
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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. |
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| IN SHAFTS—FALLING INTO THE SHAFT FROM THE SURFACE—(3 deaths). | | | | | | |
| 146 | 31st May, 7-30 P.M. | Patmohna mine, Sitarampur P. O., Bengal. | Patmohna Collieries, Ltd. | Shukri Baldarin, (f.), 30, <i>Labourer.</i> | Coal | Deceased was drawing water from an old shaft in the dark. She slipped and fell into the shaft, and was drowned. Inspection and inquiry made. |
| 147 | 2nd October, 4-30 P.M. | Mosaboni mine, Bakha Mines P. O., Bihar and Orissa. | Cordoba Copper Co., Ltd. | Chinappa, (m.), 24-25, <i>Miner.</i> | Copper ore | Whilst at work at the top of a prospecting shaft, 110 feet in depth, deceased fell into the shaft and was killed. Inspection and inquiry made. |
| 148 | 3rd December, 2-15 A.M. | Shampur mine, Mugma P. O., Bihar and Orissa. | Shampur Coal Co., Ltd. | Phandi Mahata, (m.), 35, <i>Banksman.</i> | Coal | During the night shift, deceased, omitted to close the gate at the top of a winding shaft. He fell down the shaft, a distance of 113 feet and was killed instantly. Inspection and inquiry made. |
| IN SHAFTS—FALLING FROM PART OF THE WAY DOWN—(3 deaths). | | | | | | |
| 149 | 16th April, 11 A.M. | Korrabad Nodia mine, Panuria P. O., Bengal. | Trans Adjai Collieries, Ltd. | Amiruddin Meah, (m.), 20, <i>Mason.</i> | Coal | Deceased, with four others, was working on a bricking scaffold near the top of an air shaft, 62 feet deep. They were re-building a portion of the shaft lining. The ends of the frame of the scaffold were carried in recesses in the brickwork. An overload of building materials was placed on the scaffold, and one of the main timbers of its frame snapped. The scaffold canted, and two of the men were precipitated into the water at the bottom of the shaft. Deceased was drowned. The other men escaped without injury. Inspection and inquiry made. |
| 150 | 8th July, 11 P.M. | Mosaboni mine, Bakha Mines P. O., Bihar and Orissa. | Cordoba Copper Co., Ltd. | Govinda, (m.), 33, <i>Miner.</i> | Copper ore | While deceased was ascending the topmost ladder in a prospecting shaft he lost his hold and fell to the bottom, a distance of 100 feet. He was killed instantly. Inspection and inquiry made. |
| 151 | 1st—8th September. | Marine mine, Kusunda P. O., Bihar and Orissa. | Marine Coal Co., Ltd. | Lutam Kahar, (m.), 30, <i>Labourer.</i> | Coal | The body of deceased was found at the bottom of a winding shaft, 215 feet deep. The shaft was properly fenced both at the surface and at a mid-inset. Inspection and inquiry made. |
| IN SHAFTS—THINGS FALLING FROM THE SURFACE—(1 death). | | | | | | |
| 152 | 26th December, 7 P.M. | Barmonciba mine, Sitarampur P. O., Bengal. | New Beerbham Coal Co., Ltd. | Budhan Doshad, (m.), 35, <i>Sinker.</i> | Coal | Deceased and six other men were working at the bottom of a sinking shaft, 103 feet deep, when the banksman, fell from the top of the shaft on to deceased, killing him instantly. The banksman was not seriously injured. Inspection and inquiry made. |

IN SHAFTS—THINGS FALLING FROM PART OF
THE WAY DOWN—(2 deaths).

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| 153 | 8th October, 11 P.M. | Kargali mine, Bokaro P. O., Bihar and Orissa. | Great Indian Peninsula Railway Co. | Sahadeo Dosal, (m.), 20, <i>Pump attendant.</i> | Coal | Deceased was on a pump scaffold suspended at a point 15 feet above the bottom of a sinking shaft, 337 feet deep. A piece of stone fell from the side of the shaft and struck him, causing deep wounds. He fell to the bottom of the shaft and sustained a fracture of the spine. A sinker in the shaft bottom was injured by the falling stone. Inspection and inquiry made. |
| 154 | 17th November, 11-30 A.M. | Rakha Hills mine, Rakha Mines P. O., Bihar and Orissa. | Cape Copper Co., Ltd. | K. D. Ramaya, (m.), 55, <i>Timber Mistry.</i> | Copper ore | Whilst a loaded skip was being raised in a shaft derailment took place. The skip overturned and its contents fell down the shaft, killing deceased who was at work further down the shaft. Inspection and inquiry made. |

IN SHAFTS—MISCELLANEOUS—(5 deaths).

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| 155 | 12th August, 9 A.M. | Katras mine, Katrasgarh P. O., Bihar and Orissa. | Burrakur Coal Co., Ltd. | (1) Rata Kumar, (m.), 18 ; (2) Gurudayal Moodi, (m.), 21 ; (3) Nurah Khan, (m.), 34, <i>Sinkers.</i> | Coal | Five sinkers were standing on a scaffold suspended in a shaft from a winch at surface, and were engaged in dressing the sides of the shaft. Stone from the side of the shaft fell upon the scaffold, and its weight was sufficient to carry away the winch at surface, and to cause the scaffold to descend some 20 to 30 feet. The winch displaced some heavy fencing planks at the top of the pit, and these fell down the shaft, killing three of the men and injuring another. Inspection and inquiry made. (See Report, page 13.) |
| 156 | 19th August, 7 A.M. | Jibutil mine, Morrison P. O., Madras. | Jibutil (Anantapur) Gold Mines, Ltd. | Jimmie, (m.), 30, <i>Pumpman.</i> | Gold | Deceased whilst on duty at a steam pump fixed in a shaft lost consciousness owing to the high temperature in the shaft. He fell into water in the shaft and was drowned. Inspection and inquiry made. |
| 157 | 27th October, 8-30 A.M. | Kujama mine, Jharua P. O., Bihar and Orissa. | K. & S. Nanjee | Goolu Mabata, (m.), 35, <i>Coal-cutter.</i> | Coal | Deceased, instead of using the pass-by, and un-noticed by the onsetter, crossed the bottom of a shaft. He was caught by the descending cage, and received injuries from which he died two hours later. Inspection and inquiry made. |

BY EXPLOSIVES—(20 deaths).

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| 158 | 9th February, 2-30 P.M. | Jharua Khas mine, Jharua P. O., Bihar and Orissa. | Standard Coal Co., Ltd. | (1) Joypal Chamar, (m.), 12 ; (2) Bhagwan Chamar, (m.), 16, <i>Coal-cutters.</i> | Coal | The deceased and another coal-cutter, were burned by the ignition of gunpowder in a miners' hut. The deceased died some hours later. Inspection and inquiry made. |
| 159 | 20th February, 8 A.M. | Barkui mine, Pench P. O., Central Provinces. | Pench Valley Coal Co., Ltd. | (1) Pardesi Kole, (m.), 18 ; (2) Dharua Kole, (m.), 14 ; (3) Bansa Gond, (m.), 15, <i>Banksmen ;</i> (4) Daari Gondni, (f.), 18, <i>Coal-filler.</i> | Coal | A shot-firer placed 22 lbs. of gunpowder in a wooden tool chest underground. By some means unknown the powder became ignited and exploded. Five persons in the vicinity were severely burnt and four of them died subsequently. The shot-firer was prosecuted, convicted and sentenced to two years' imprisonment. |

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. |
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| BY EXPLOSIVES—concl'd. | | | | | | |
| 160 | 8th March, 12 A.M. | Kowabar mine, Jhumri-Tilaiya P. O., Bihar and Orissa. | A. C. Bose & Sons | Mongar Singh, (m.), 28, Driller. | Mica | Deceased was drilling a shot hole near another hole in which a shot had missed fire. The mis-fired charge exploded, causing injuries to which he succumbed the next day. Inspection and inquiry made. |
| 161 | 1st April, 10 P.M. | Patrahi mine, Tisri P. O., Bihar and Orissa. | Joharmull Sandermull & Co. | Sohan Turi, (m.), 18, Driller. | Mica | A mis-fire had occurred in the previous shift. Whilst deceased was engaged in drilling a hole for a relieving charge the mis-fired charge exploded. He sustained injuries which caused his death a few hours afterwards. |
| 162 | 24th April, 8-30 P.M. | Methani mine, Sitarampur P. O., Bengal. | Alcib Coal Co., Ltd. | Chutu Singh, (m.), 22, Sinker. | Coal | During sinking operations, a round of nine shots was fired in the sump. One shot mis-fired, and the explosives became mixed with the debris. Ten hours later, deceased with eighteen others was removing the debris, when the shot went off. Deceased, sustained injuries from which he died within an hour. Eight of the other men sustained slight superficial injuries. Inspection and inquiry made. |
| 163 | 13th May, 6 A.M. | Nursamuda mine, Asansol P. O., Bengal. | Sitarampur Coal Co. | Behari Kurmi, (m.), 30, Sinker. | Coal | Two shots had been fired to relieve two mis-shots in a sinking shaft. An hour and a half later when deceased and other persons were cleaning up debris an explosion took place. Deceased was fatally injured and died 14 hours later. Another man was severely injured. Inspection and inquiry made. |
| 164 | 29th June, 9 A.M. | Bhulanbararee mine, Jharia P. O., Bihar and Orissa. | Bhulanbararee Coal Co., Ltd. | Bhairab Roy, (m.), 48, Miners' Sirdar. | Coal | Deceased was drying gunpowder in a pan over an open fire. He was in the act of stirring the powder when it caught fire and flamed up. He received burns from which he died six days later. Inspection and inquiry made. |
| 165 | 19th June, 9 A.M. | Datla mine, Pench P. O., Central Provinces. | Pench Consolidated Coal Co., Ltd. | Udhukiza Mehra, (m.), 30, Coal-cutter. | Coal | Deceased with another man had removed some gunpowder from a canister. One of the two men had been smoking, and presumably the gunpowder was accidentally ignited by means of a match or a cigarette end. Both men were slightly burnt. Deceased ran away from the hospital and stripped off his bandages. He died eleven days later. Inspection and inquiry made. |
| 166 | 17th August, 6 A.M. | Alkusa North mine, Kusunda P. O., Bihar and Orissa. | Raniganj Coal Asso- ciation, Ltd. | Mahadeo Turi, (m.), 40, Sirdar and shot-firer. | Coal | Deceased was drying gunpowder in a basin in front of a fire, when a spark from the fire ignited the powder. He was severely burnt, and died five days later. Inspection and inquiry made. |
| 167 | 17th August, 11-30 A.M. | Nandi mine, Nandi P. O., Bengal. | Adjai Coal Co., Ltd. | Mangee Chamar, (m.), 40, Coal-cutter. | Coal | Deceased after having 3 lbs. of gunpowder issued to him, went to his quarters to cook food instead of going into the mine at once. His clothing became accidentally ignited, and in divesting himself of it he threw a piece of the burning cloth on to a tin canister containing the powder. The powder exploded and burnt deceased severely all over the body. He died on the following morning. Inspection and inquiry made. |

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| 168 | 1st September, 9-30 A.M. | Katras mine, Katraszarb P. O., Bihar and Orissa. | Barrakur Coal Co., Ltd. | Gali Singh, (m.), 35, <i>Machineman.</i> | Coal | Deceased was trimming an open lamp when a piece of smouldering wick fell into some gunpowder which was close at hand. The powder was ignited, and deceased was severely burnt about the body. He died 12 days later. Inspection and inquiry made. | |
| 169 | 5th October, 8-30 P.M. | Craddock mine, Pench P. O., Central Provinces. | Central Pench Coal Co. | Rasun Parlihan, (m.), 15, <i>Labourer.</i> | Coal | Deceased had been assisting a shot-firer in making up gunpowder cartridges. There was a fire burning some 8 feet away. Whilst sweeping up loose powder which had fallen on the ground, the powder caught fire. Deceased sustained fatal injuries and another man was severely burnt. Inspection and inquiry made. | |
| 170 | 19th November, 1 P.M. | Jamadoba mine, Jamadoba P. O., Bihar and Orissa. | Tata Iron & Steel Company, Ltd. | (1) Benwari Singh, (m.), 24 ; (2) Jobraj Singh, (m.), 16 ; (3) Bikhari Singh, (m.), 30, <i>Coal-cutters.</i> | Coal | The deceased, one of whom was a shot-firer, were charging a shothole in roof coal. While pushing in the second cartridge of gunpowder it burst, and the gunpowder fell out and on to a lamp which was directly below the hole. This in turn ignited the powder in an open box which was standing close by. The deceased was severely burnt all over the body, and succumbed to their injuries a few hours later. Inspection and inquiry made. | |
| 171 | 9th December, 12 noon. | Jattachappa mine, Parasia P. O., Central Provinces. | Upper Pench Coal Co., Ltd. | Kapusingh Thakur, (m.), 45, <i>Shot-firer.</i> | Coal | Deceased sustained fatal burns through an explosion of gunpowder. His deposition was that he had opened his powder tin, and his assistant threw a cigarette end into it. The assistant was slightly burnt. | |
| HAULAGE—(32 deaths). | | | | | | | |
| 172 | 10th January, 7-30 P.M. | Kargali mine, Bokharo P. O., Bihar and Orissa. | Great Indian Peninsula Railway Co. | Ram Bux, (m.), 26, <i>Coal-cutter.</i> | Coal | Deceased was run over by a set of five tubs which was being lowered by hand down a slight incline in a quarry. He received injuries from which he died some hours later. Inspection and inquiry made. | |
| 173 | 24th January, 9-15 A.M. | Ballarpur mine, Ballarpur P. O., Central Provinces. | Rai Bahadur Bissesardas Daga and Sir M. B. Dadabhoy. | Pital Papi Lachmaru (f.), 40, <i>Trammer.</i> | Coal | Owing to the slipping of a clip on an endless haulage road a loaded tub ran wild killing deceased and injuring another man. Inspection and inquiry made. | |
| 174 | 9th February, 4 P.M. | Singrah mine, Mohuda P. O., Bihar and Orissa. | Singrah Coal Co., Ltd. | Bidhua Dhobi, (f.), 18, <i>Labourer.</i> | Coal | The first tubs of a set of ten loaded tubs which was gravitating from the workings to a haulage incline derailed near the junction. Deceased, who was returning to work, was crushed between the side of the road and one of the tubs. She was killed instantly. Inspection and inquiry made. | |
| 175 | 13th February, 11 A.M. | South East Baraboni mine, Charanpur P. O., Bengal. | Maharaja of Cassimbazar | Manu Roy, (m.), 39, <i>Coal-cutter.</i> | Coal | Deceased had lowered a loaded coal tub down an inclined haulage road on to a level stretch. He had failed to secure a second tub which ran away, crashed into the first one and turned over. Deceased sustained serious injuries to the left leg and died two days later. Inspection and inquiry made. | |
| 176 | 3rd March, 7 P.M. | Ena mine, Jharia P. O., Bihar and Orissa. | North-West Coal Co., Ltd. | Sona Mahato, (m.), 30, <i>Coal-cutter.</i> | Coal | Whilst a train of 10 empty tubs was being lowered on a haulage slope the three leading tubs became detached and ran wild for a distance of about 400 feet. Deceased, who was walking out of the mine at the time, was run over and killed. 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—contd. | | | | | | |
| 177 | 5th March, 2-30 P.M. | Pandaveswar mine, Pandaveswar P. O., Bengal. | Pandaveswar Colliery, Ltd. | Niroo Bauri, (f.), 13, Labourer. | Coal | A tub, which was being loaded with coal, was standing on a road having a gradient of 1 in 40. The 'locker' or 'sprag' in the wheel of the tub slipped out and the tub ran forward on to deceased who was sitting on the line in front of it. She sustained serious injuries and died 2 days later. Inspection and inquiry made. (See Report, page 13.) |
| 178 | 7th March, 1 A.M. | Khost mine, Khost P. O., Baluchistan. | North-Western Railway | Snif, (m.), 20, Labourer. | Coal | Whilst deceased was being raised in a tram in an inclined shaft the tram derailed. He attempted to get out of the tram, and was crushed between the tram and the shaft timbers, sustaining injuries which caused death within a few days. |
| 179 | 16th March, 9-45 A.M. | Phularitand mine, Katrasgarh P. O., Bihar and Orissa. | Phularitand Coal Co., Ltd. | Shibu Kahar, (m.), 27, Surveyor's chainman. | Coal | Whilst a train of six loaded tubs was being hauled up an incline a coupling gave way. Four of the tubs ran wild and collided with an empty tub. The latter fell on the deceased, killing him instantly. Inspection and inquiry made. |
| 180 | 25th March, 1-30 P.M. | Joyramdanga mine, Asansul P. O., Bengal. | New Beerbhum Coal Co., Ltd. | Ram Lal Mahato, (m.), 30, Labourer. | Coal | Whilst a set of seven loaded tubs was being hauled up an incline, five of the tubs became uncoupled and ran back down the incline. Deceased, who was walking up the incline at the time, failed to get out of the way and was killed. Inspection and inquiry made. |
| 181 | 4th April, 5-30 P.M. | Samla Chatrisgonda mine, Pandaveswar P. O., Bengal. | Samla and Kendra Col- lieries, Ltd. | Body Bauri, (m.), 24, Pumpman. | Coal | A train of three tubs had been hauled to the top of a haulage slope. A Sirdar took off the drag and uncoupled the rear tub, but omitted to turn over the points for the siding. The upper stop block had been left open, and the tub ran back down the incline, demolished a second stop block, and struck deceased, causing fatal injuries. Inspection and inquiry made. (See Report, page 14.) |
| 182 | 10th April, 7-15 A.M. | Bhulanbararee mine, Jharis P. O., Bihar and Orissa. | Bhulanbararee Coal Co., Ltd. | Majoo Gowala, (m.), 22, Hookman. | Coal | Deceased was riding on the front tub of a train of loaded tubs which was being hauled out of an incline. At the entrance to the mine he jumped off, fell and was run over. He received injuries which necessitated the amputation of his leg. He died two days later. Inspection and inquiry made. |
| 183 | 25th April, 5 P.M. | Chittidand mine, Golpur P. O., Panjab. | Panjab Coal Co., Ltd. | Nathoo, (m.), 22, Labourer. | Coal | Deceased was working underground at the bottom of a self-acting incline when the rope broke and the tubs ran wild. He was crushed between the tubs and the side of the road, receiving injuries from which he died 1½ hours later. Inspection and inquiry made. |
| 184 | 19th May, 11 A.M. | Sripore mine, Kalipahari P. O., Bengal. | Lodna Colliery Co., Ltd. | Khiri Korah, (f.), 15, Coal-carrier. | Coal | The deceased was walking along a haulage road when, hearing the approach of a loaded tub, she apparently lost her head and stepped in front of the tub. The tub ran over her, causing injuries to which she succumbed in hospital a month later. Inspection and inquiry made. |

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| 185 | 14th May, 12-14 P.M. | Rajhara mine, Rajhara P. O., Bihar and Orissa. | Bengal Coal Co., Ltd. | Natukihari Ram, (m.), 14, <i>Door-keeper.</i> | Coal | Deceased was employed in opening and closing a door on an underground haulage slope. The door was operated by a wire from a manhole. Hearing a runaway tub coming the deceased ran to the door and shouted a warning, but failed to get clear himself, and received injuries from which he died next day. Inspection and inquiry made. |
| 186 | 21st May, 12-30 P.M. | Bansjora mine, Bansjora P. O., Bihar and Orissa. | Bansjora Coal Co., Ltd. | Rupea Bhoiya, (f.), 25, <i>Coal-carrier.</i> | Coal | Whilst a set of seven tubs was being hauled up an incline of 1 in 3 the coupling of the first tub gave way causing six of the tubs to run wild to the bottom, where they smashed the buffer. Deceased who was standing below the buffer, was killed instantly. Inspection and inquiry made. |
| 187 | 28th May, 8-10 A.M. | Ballarpur mine, Ballarpur P. O., Central Provinces. | Rai Bahadur Biswasdas Daga and Sir M. B. Dadabhoj. | Uttumpat Singh, (m.), 25 years, <i>Haulage attendant.</i> | Coal | Owing to the failure of another haulage attendant to release an unusually stiff clip on an endless haulage road a loaded tub was drawn against two other tubs which were being coupled by deceased. Deceased was crushed between the tubs and sustained injuries to the head which caused his death seventeen days later. Inspection and inquiry made. |
| 188 | 9th June, 12 noon. | Chatraigonda mine Pandaveswar P. O., Bengal. | Sarla-Kendra Collieries, Ltd. | Rakha Hari Dutta (m.), 40, <i>Hookman.</i> | Coal | Deceased was waiting for a set of empty tubs at the bottom of a haulage incline. Five empty tubs became uncoupled, ran down the incline, broke through stop block, and killed deceased. Inspection and inquiry made. (<i>See Report, page 14.</i>) |
| 189 | 10th June, 10 A.M. | Jainty Central mine, Karmatar P. O., Bihar and Orissa. | Jainty Central Collieries, Ltd. | Maku Mejhian, (f.), 14, <i>Labourer.</i> | Coal | Deceased and ten other persons were asleep in a manhole at the side of an underground haulage slope. Five empty tubs ran away from the bank head. Being awakened by the noise of the tubs coming down the incline, they ran out of the manhole and were struck by the tubs. Deceased was killed and three of the other persons were injured. Inspection and inquiry made. (<i>See Report, page 14.</i>) |
| 190 | 26th June, 5 A.M. | Bhulanbararee mine, Jharua P. O., Bihar and Orissa. | Bhulanbararee Coal Co., Ltd. | Muki Mejhian, (f.), 20, <i>Coal-carrier.</i> | Coal | A set of four loaded tubs was lowered too quickly on a dip haulage slope and it collided with another set of five loaded and four empty tubs which was resting against a buffer stop. The buffer stop was broken, and deceased was run over by the tubs and killed. Inspection and inquiry made. |
| 191 | 30th June, 4-30 P.M. | Ledo Valley mine, Marghoritta P. O., Assam. | Assam Railways and Trading Co., Ltd. | Bhobey Jogi, (m.), 40, <i>Pony driver.</i> | Coal | Deceased was in charge of a pony which was hauling a train of tubs on an underground road. He was walking behind the train when the pony stopped, and he attempted to reach its head. The pony, however, started again, and deceased was crushed between the tubs and the side of the road, sustaining injuries which resulted fatally, three days later. There was ample room to pass on the other side of the train. Inspection and inquiry made. |
| 192 | 14th July, 3-45 A.M. | Chowrasia mine, Dishergarh P. O., Bihar and Orissa. | Equitable Coal Co., Ltd. | Kristo Bauri, (m.), 36, <i>Hookman.</i> | Coal | As a set of full tubs was being drawn up an incline, one of the links in a shackle broke, causing six full tubs to run back. These tubs became derailed and crushed deceased against the side of the incline causing injuries from which he died three hours later. Inspection and inquiry made. |
| 193 | 15th July, 7-30 P.M. | Jamadoba mine, Jamadoba P. O., Bihar and Orissa. | Tata Iron and Steel Co., Ltd. | Dwarbar Meah, (m.), 20, <i>Main gallery driver.</i> | Coal | Deceased was returning from work and was walking up a haulage incline, when he was struck by a derailed runaway tub. He received injuries from which he died shortly after. A separate travelling road was provided. 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—concl'd. | | | | | | |
| 194 | 16th July, 8 A.M. | Khost mine, Khost P. O., Baluchistan. | North-Western Railway | Wali Hussain, (m.), 30, <i>Bankman.</i> | Coal | Deceased was on duty as shaft attendant at an intermediate landing in a highly inclined shaft. A derailment occurred in the shaft, and, in attempting to climb up the shaft to assist in re-railing the train, he slipped and fell down the shaft, being killed instantly. |
| 195 | 4th August, 11 A.M. | Huntodih mine, Jharia P. O., Bihar and Orissa. | Huntodih Coal Co., Ltd. | Sibaroth Kurmi, (m.), 50, <i>Screen attendant.</i> | Coal | While a set of ten empty tubs was being lowered over the top of an incline the coupling hook next to the rope broke, and the tubs ran wild. Deceased was employed as a door attendant at the second level where a refuge place was provided. He lost his head and ran out in front of the tubs. He was run over and killed instantly. Inspection and inquiry made. |
| 196 | 17th August, 9-30 A.M. | Kustore South mine, Kusunda P. O., Bihar and Orissa. | Raniganj Coal Association, Ltd. | Subhotin Dhamorah, (f.), 35, <i>Coal-carrier.</i> | Coal | Deceased was walking along a main shaft level underground. Whilst she was crossing the foot of a haulage slope she was run over by runaway tubs, and sustained fatal injuries. Inspection and inquiry made. |
| 197 | 24th August, 6 P.M. | Bhagaband mine, Jharia P. O., Bihar and Orissa. | Borrea Coal Co., Ltd. | (1) Abdul Meah, (m.), 45, <i>Line Mistri;</i> (2) Monga Hazam, (m.), 25; (3) Chalkar Goals, (m.), 25, <i>Labourers.</i> | Coal | While a set of seven loaded tubs was being hauled up an incline the front coupling chain broke and the tubs ran wild. The three deceased, who were working at the entrance to a new cross-cut below the landing in use, were run over and killed. Inspection and inquiry made. |
| 198 | 26th September, 5 P.M. | Bhalgora mine, Jharia P. O., Bihar and Orissa. | Bhalgora Coal Co., Ltd. | Gobind Sha, (m.), 25, <i>Labourer.</i> | Coal | Whilst a loaded tipping tub was being tried over a newly laid line it derailed and fell on deceased. He died ten hours later. Inspection and inquiry made. |
| 199 | 1st October, 3-20 P.M. | Ballarpur mine, Ballarpur P. O., Central Provinces. | Rai Bahadur Bisesardass Daga and Sir M. B. Dadabhoy. | Yado Vidur, (m.), 32, <i>Tranmer.</i> | Coal | At a junction on an endless haulage road there was room for three tubs to stand on an automatic stop-check. The pin of the check was removed, and ten tubs were placed there on sprags. The tubs ran wild and broke another check further down the line. Deceased was run over and killed. Inspection and inquiry made. |
| 200 | 3rd October, 8-30 P.M. | South East Baraboni mine, Charanpur P. O., Bengal. | Maharaja of Cassimbazar | Aghore Mitter, (m.), 24, <i>Sircar.</i> | Coal | Deceased attempted to jump on to a train of tubs proceeding up an incline. He fell, and was carried along for a distance of 60 feet. He sustained serious injuries to which he succumbed three days later. Inspection and inquiry made. |

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| 201 | 15th October, 10-30 A.M. | Ledo Valley New West mine, Margherita P. O., Assam. | Assam Railways and Trading Co., Ltd. | Gurul Chamar, (m.), 27, Hookman. | Coal | Deceased was standing at the bottom of an underground self-acting incline when a full tub overran the stop block at the top of the incline, ran down the incline, and crushed deceased against the side of the road, killing him instantly. Inspection and inquiry made. |
| SUNDRIES UNDERGROUND—(12 deaths). | | | | | | |
| 202 | 22nd January, 9-30 P.M. | Bawdwin mine, Namtu P. O., Northern Shan States, Burma. | Burma Corporation, Ltd. | Jubsingh, (m.), 34, Labourer. | Lead ore | While deceased was shovelling ore into a shoot through an opening, 18" x 3' wide, he took fright at a small fall of ground above him. He stumbled and fell down the shoot, a distance of 80 feet. Death was instantaneous. Inspection and inquiry made. |
| 203 | 20th January, 5 A.M. | Lakurka mine, Katsyarah P. O., Bihar and Orissa. | Lakurka Coal Co., Ltd. | Noonia Mejhian, (f.), 35, Coal-carrier. | Coal | Deceased was emptying a basket of coal into a tub in a gallery underground when the basket overbalanced. In stepping back to avoid it she fell against the side of the gallery and injured her back. She died from her injuries two months later. Inspection and inquiry made. |
| 204 | 6th April, 1-30 A.M. | Serampur mine, Giridih P. O., Bihar and Orissa. | East Indian Railway Co. | Churo Chamar, (m.), 35, Coal-cutter. | Coal | Deceased whilst at work in a gallery 16 feet in height fell from a ladder and falling a distance of 9 feet sustained injuries to the head which resulted fatally shortly after. Inspection and inquiry made. |
| 205 | 11th April, 8 P.M. | Seebpur mine, Charanpur P. O., Bengal. | Katras Jharia Coal Co., Ltd. | Kusmi Baurin, (f.), 20, Labourer. | Coal | An empty tub fell from the cage into the sump at the bottom of a shaft, 600 feet deep. Deceased, who was employed at the pit bottom, was subsequently found drowned in the sump. Inspection and inquiry made. |
| 206 | 7th July, 2 A.M. | Kantapahari mine, Asansol P. O., Bengal. | Burrakur Coal Co., Ltd. | Pag Sing, (m.), 45, Labourer. | Coal | Deceased and ten other persons were ordered to hoist a motor by means of a winch and snatch block from a pump house situated in a roadway, dipping 1 in 3.5. Having hauled up the motor 75 feet, instructions were given to scotch it up to allow of the anchor for the snatch block being advanced. When slack rope was being given out from the winch in order to release the snatch block, the motor slipped back about 8 feet, and struck deceased on the thigh. He died from his injuries ten days later. Inspection and inquiry made. |
| 207 | 14th August, 1 A.M. | Guzh mine, Khost P. O., Baluchistan. | North-Western Railway. | Gulam Mohammad, (m.), 17; Labourer. | Coal | Whilst deceased was laying rails on a level in a highly inclined coal seam, a coal shoot broke away from its fastening and slipped down into the level. The end of the shoot struck deceased on the head, killing him instantly. |
| 208 | 8th September, 2-30 P.M. | Tikak Lower mine, Margherita P. O., Assam. | Assam Railways and Trading Co., Ltd. | Leopok, (m.), 27, Pony Driver. | Coal | Deceased was driving a pony in an underground gallery when he was knocked down by the pony, sustaining injuries from which he died shortly after. Inspection and inquiry made. |
| 200 | 15th October, 9-30 A.M. | Bawdwin mine, Namtu P. O., Burma. | Burma Corporation, Ltd. | Fro Soy, (m.), 38, Miner. | Lead ore | Whilst at work underground deceased was struck by a piece of ore which fell from an upper level. He received fatal injuries. |
| 210 | 25th October, 5-0 A.M. | Seebpore mine, Charanpur P. O., Bengal. | Katras Jharia Coal Co., Ltd. | (1) Matroo Khan, (m.), 35, Coalcutting Machine Mistry; (2) Taroo But, (m.), 30, Labourer. | Coal | The deceased had been operating an electric coalcutting machine. They were found dead, presumably by electrocution. 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. |
|--|----------------------------|--|--------------------------------------|---|--------------------------|---|
| SUNDRIES UNDERGROUND—concl'd. | | | | | | |
| 211 | 7th November, 1 P.M. | Kajora mine, Ondal P. O., Bengal. | H. N. Pal Choudhury | Badi Pauri, (m.), 36, <i>Pump-khalasis.</i> | Coal | Deceased after signalling for steam from the surface to be admitted to an underground pump, failed to open the steam and water valves fitted on the steam range. A joint, 3'—6" distant from the pump, blew out, and deceased was severely scalded. He died eleven hours later. Inspection and inquiry made. |
| 212 | 30th November, 4 A.M. | Namdang mine, Margherita P. O., Assam. | Assam Railways and Trading Co., Ltd. | Kabilash Routh, (m.), 45, <i>Coal-puller.</i> | Coal | Whilst coal was being shovelled down a steep slope deceased failed to stand clear. He was struck by a lump of coal and sustained fatal injuries. |
| SURFACE MACHINERY—(3 deaths). | | | | | | |
| 213 | 7th July, 10-45 P.M. | Dongar Chickli mine, Pench P. O., Central Provinces. | Central Pench Coal Co., Ltd. | Nonkhey Teli, (m.), 20, <i>Surface Trammer.</i> | Coal | Deceased and another tramping coolie pushed a tub of coal so forcibly on to a tippler that the tippler overturned backwards, carrying deceased over with it. He was precipitated into the wagon below, and killed instantly. Inspection and inquiry made. |
| 214 | 20th July, 5-30 A.M. | Bejdih mine, Sitarampur P. O., Bengal. | The Equitable Coal Co., Ltd. | Budhan Dasad, (m.), 25, <i>Labourer.</i> | Coal | Deceased and another coolie were turning the flywheel of a compressor by means of a lever when the lever being pushed only partially down the safety catch did not engage and the flywheel ran back about 2 inches. The end of the lever struck deceased on the jaw. He died some nineteen hours later. Inspection and inquiry made. |
| 215 | 29th August, 12-10 P.M. | Kankani mine, Bansjora P. O., Bihar and Orissa. | Eastern Coal Co., Ltd. | Khera Gowala, (m.), 25, <i>Labourer.</i> | Coal | Whilst the drum of a winding engine was being dismantled two round timbers 3 inches in diameter, were inserted through the spokes to prevent it from turning. When the bottom plate of the drum was dropped one of the timbers broke and the drum began to revolve. The other timber was carried round and struck deceased. He was crushed between the side of the drum and the foundation, and sustained injuries from which he died an hour later. Inspection and inquiry made. |
| SURFACE BOILERS OR PIPES BURSTING— (1 death). | | | | | | |
| 216 | 21st August, 5 P.M. | Benahir mine, Jharia P. O., Bihar and Orissa. | Standard Coal Co., Ltd. | Isharil Meah, (m.), 24, <i>Fireman.</i> | Coal | While the blow off cock of a boiler was being opened the joint between the cock and the pipe which leads the steam clear of the boiler house burst. Deceased who was standing near was scalded all over the body, and succumbed to his injuries on the following day. |

**ON SURFACE, RAILWAYS AND TRAMWAYS
BELONGING TO THE MINE—(4 deaths).**

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|-----|-----------------------------|--|---|--|----------------|---|
| 217 | 1st January, 11-30 P.M. | Bawdwin mine, Namtu P. O., Northern Shan States, Burma. | Burma Corporation, Ltd. | Gokulchand, (m.), 32, <i>Brakesman.</i> | Lead ore | A collision took place between stationary and moving trains on an electric railway passing through an adit level. Deceased who was driving the moving train was killed. |
| 218 | 7th January, 4-30 P.M. | Albion mine, Nowgarh P. O., Bihar and Orissa. | Albion Coal Co., Ltd. | Surja Narayan Roy, (m.), 21, <i>Tubechecker.</i> | Coal | Deceased attempted to jump on to a train of tubs which was in motion. He slipped and a tub ran over his leg, which had to be amputated. He died from tetanus 12 days later. Inspection and inquiry made. |
| 219 | 9th October, 10-30 A.M. | Tirody mine, Tirody P. O., Central Provinces. | D. Laxminarayan | Dukala, (f.), 45, <i>Labourer.</i> | Manganese ore. | Deceased whilst attempting to cross a tram line, slipped and fell, and was run over by a loaded tub. She sustained injuries to which she succumbed 12 days later. |
| 220 | 31st December, 8-35 P.M. | Ballarpur mine, Ballarpur P. O., Central Provinces. | Kasturchand Daga and M. B. Dadabhoy. | Gaji, (m.), 30, <i>Labourer.</i> | Coal | Deceased was unloading a sand tub on a surface endless haulage road, owing to the failure of a haulage attendant to take off a haulage clip, a moving tub collided with a stationary tub. Deceased was thrown off and sustained fatal injuries. |

MISCELLANEOUS ON SURFACE—(12 deaths).

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| 221 | 3rd June, 9-30 P.M. | Mosabani mine, Rakha Mines P. O., Bihar and Orissa. | Cordoba Copper Co., Ltd. | Nangi Nagi, (f.), 17, <i>Labourer.</i> | Copper ore | Whilst a bucket of water was being wound up a prospecting shaft some timber broke away from the side and struck the bucket. The women who were working the hoisting whim let go, and deceased who was squatting below was struck by one of the rapidly revolving arms of the whim and killed. Inspection and inquiry made. |
| 222 | 7th July, 12-30 P.M. | Kujama mine, Jharia P. O., Bihar and Orissa. | K. & S. Nanji | Akhali Mallain, (f.), 15, <i>Coal-carrier.</i> | Coal | Deceased was loading coal in a quarry, 80 feet deep, when a wall on the edge of the quarry collapsed. The debris fell into the quarry, some of it striking deceased. She was killed instantly. Inspection and inquiry made. |
| 223 | 7th July, 2-P.M. | Solwa mine, Kamptee P. O., Central Provinces. | Central Indian Mining Co. Ltd. | Sumi, (f.), 16, <i>Labourer.</i> | Manganese. | Deceased whilst washing on the edge of a water-logged quarry slipped in and was drowned. Inspection and inquiry made. |
| 224 | 20th July, 8 A.M. | Purushotampur mine, Pandaveswar P. O., Bengal. | Tata Iron & Steel Co., Ltd. | Radhu Baurin, (f.), 20, <i>Labourer.</i> | Coal | Deceased was carrying on her head a boulder, weighing 118 lbs. She over-balanced and fell backwards. The boulder struck her on the forehead, killing her instantly. Inspection and inquiry made. |
| 225 | 8th August, 4 P.M. | Kendwadih mine, Katragarh P. O., Bihar and Orissa. | Chamanlal Mangallal & Co. | Ali Mohammad, (m.), 36, <i>Labourer.</i> | Coal | Deceased and six companions were lifting a vertical boiler into place with the aid of a small crab winch. One of the handles broke and as there was neither brake nor pawl the other handle was forced backwards and struck deceased on the head. He died four hours later. Inspection and inquiry made. (<i>See Report, page 16.</i>) |
| 226 | 22nd August, 2-30 P.M. | Teetulmuri mine, Sijua P. O., Bihar and Orissa. | Burrakur Coal Co., Ltd. | Samia Murani, (f.), 13, <i>Labourer.</i> | Coal | Deceased left her work and went to get a bird's nest built on the top of a standard which supports a three phase transmission line carrying electricity at a pressure of 6000 volts. She climbed up the standard and stood on the return wire, and made contact with one of the live wires above. She was very badly burnt, and died shortly after. 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. |
|--|-----------------------------|---|--|---|--------------------------|--|
| MISCELLANEOUS ON SURFACE—concl. | | | | | | |
| | 2nd September, 4-30 P.M. | Isabella mine, Nudkhurki P. O., Bihar and Orissa. | Isabella Coal Co. | Durgi Kamin, (f.), 25, Labourer. | Coal | Deceased was found drowned in a masonry tank containing water, 7 feet deep. She had been employed in carrying water from the tank. Inspection and inquiry made. |
| 228 | 27th September, 12 noon. | Lohdongri mine, Ramtek P. O., Central Provinces. | Central Provinces Pros- pecting Syndicate, Ltd. | Bubin Perdhan, (m.), 27, Labourer. | Manganese | Deceased whilst bathing in an accumulation of water in a quarry was drowned. Inspection and inquiry made. |
| 229 | 24th October, 7-30 P.M. | Sudamdih mine, Jharin P. O., Bihar and Orissa. | Sudamdih Coal Co., Ltd. | Ramdhan Singh, (m.), 55, Chowkidar. | Coal | Deceased apparently missed his way in the dark and fell over the fence into an incline. His injuries were slight but he afterwards died in hospital from dysentery. Inspection and inquiry made. |
| 230 | 28th October, 6 A.M. | Bhulanbararee mine, Jharin P. O., Bihar and Orissa. | Bhulanbararee Coal Co., Ltd. | Sadagar Singh, (m.), 37, Labourer. | Coal | Deceased for some reason unknown and against all orders, climbed a standard carrying an high tension electrical transmission line. He was electrocuted. Inspection and enquiry made. |
| 231 | 5th December, 12 noon. | Loyatad mine, Bansjora P. O., Bihar and Orissa. | Burrakur Coal Co., Ltd. | Fatma, (f.), 13, Labourer. | Coal | Whilst deceased was attempting to remove a scaffolding pole from the wall of a building under construction the wall collapsed, seriously injuring her. She succumbed to her injuries six hours later. Inspection and inquiry made. |
| 232 | 31st December, 3 P.M. | Taroktan mine, Mogok P. O., Burma. | Burma Ruby Mines, Ltd. | Somaris, (m.), 20, Labourer. | Rubies | A gang of coolies after carrying an iron pipe let the pipe fall from their shoulders instead of lowering it down. Deceased, who was one of the gang, fell with the pipe and was fatally injured. |

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. | Reason for exclusion. | Cause of accident and remarks. |
|---|----------------------------|--|--|---|--------------------------|------------------------|--|
| DEATHS NOT INCLUDED IN THE STATISTICS—(37 deaths). | | | | | | | |
| 1 | 10th January | Hingunia mine, (Square No. m-14), Kodarma P. O., Bihar and Orissa. | Messrs. Hoare Miller & Co., Ltd. | Balia Ghatwarin, (f.), 25. | Mica | Not employed | Deceased fell into a disused shaft, 50 feet deep, and was killed. It was presumed that she was at the time engaged in stealing the wooden fencing of the shaft. Inspection and inquiry made. |
| 2 | 11th January | Salanpur mine, Salanpur P. O., Bengal. | Borrea Coal Company, Ltd. | Pano Noonis, (f.), 75. | Coal | Not employed | Deceased, whilst drawing water from a well, 125 feet deep, over-balanced and fell into the water. She was drowned. Inspection and inquiry made. |
| 3 | 18th January, 12-30 P.M. | Mudidih mine, Sijua P. O., Bihar and Orissa. | Burrakur Coal Co., Ltd. | Teju Mullick, (m.), 38, <i>Sirdar</i> . | Coal | Not a mining accident. | Deceased went over the walling of a disused incline entrance to bathe, and was drowned in a depth of 15 feet of water. Inspection and inquiry made. |
| 4 | 24th January, 12 A.M. | South Kujama mine, Jharia P. O., Bihar and Orissa. | Bagdigi Kujama Collieries, Ltd. | Ramtahal, (m.), 1. | Coal | Not employed | Deceased had been placed near a surface tram line and had crawled up to the line unnoticed by any one. He was struck on the head by a passing tub and killed instantly. Inspection and inquiry made. |
| 5 | 11th February, 11-30 A.M. | S-tikdih mine, Bhujudih P. O., Bihar and Orissa. | Sutikdih Coal Co., Ltd. | Sombari Monda, (f.), 14. | Coal | Not employed | Deceased wandered on to a surface tram line. She was run over and killed by a loaded tub which was being pushed by two men. Inspection and inquiry made. |
| 6 | 20th February, 2 P.M. | Sendra mine, Bansjora P. O., Bihar and Orissa. | Sendra Coal Co., Ltd. | Badamis Chamarin, (f.), 24, <i>Labourer</i> . | Coal | Not a mining accident. | Deceased, whilst washing dishes in a masonry bathing tank, slipped in and was drowned. Inspection and inquiry made. |
| 7 | 23rd February, 3-15 P.M. | Bokaro mine, Bokaro P. O., Bihar and Orissa. | East Indian Railway and Bengal Nagpur Railway. | Montora Dhoabin, (f.), 65. | Coal | Not employed | Deceased was an old woman and partially blind. While she was crossing a surface tram line she tripped over the haulage rope and fell. She was run over and received injuries from which she died 12 hours later. Inspection and inquiry made. |
| 8 | 24th February, 5-30 P.M. | Kharkhari and Mohepur mine, Katrasgarh P. O., Bihar and Orissa. | Kharkhari Collieries, Ltd. | Bipni Beldarin, (f.), 6. | Coal | Not employed | Deceased, in attempting to cross a surface tram line, was knocked down by a loaded tub which was being pushed to the loading depot. She received injuries to the leg and died from blood poisoning eleven days later. Inspection and inquiry made. |
| 9 | 7th March, 9 P.M. | Mudidih mine, Sijua P. O., Bihar and Orissa. | Burrakur Coal Co., Ltd. | Anich Goals, (m.), 32, <i>Brick maker</i> . | Coal | Not a mining accident. | Deceased went to sleep in a grass hut in which a fire was burning. The hut caught fire and he was burnt to death. Inspection and inquiry made. |
| 10 | Not known | Srikristopur mine, Kalipahari P. O., Bengal. | Messrs. Balliram & Co. | Ganga Majhee, (m.), 50. | Coal | Not employed | Deceased was found drowned in a sinking shaft, 42 feet deep. He was said to have been mentally defective. 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. | Reason for exclusion. | Cause of accident and remarks. |
|---|----------------------------|---|--|---|--------------------------|------------------------|--|
| DEATHS NOT INCLUDED IN THE STATISTICS—contd. | | | | | | | |
| 11 | 20th March, 9 A.M. | Saundi mine, Samdih P. O., Bengal. | B. Hazra & Co. | Dugai Manjhi, (m.), 45. | Coal | Not employed | Deceased went into an abandoned quarry and began to cut coal for his own use and for sale. A mass of earth, 4' 6" x 3' x 9" weighing about 18 cwt., fell upon him from the side. He sustained injuries from which he died almost immediately. Inspection and inquiry made. |
| 12 | 21st March, 4 A.M. | New Kessurgarh mine, Nowagarh P. O., Bihar and Orissa. | New Kessurgarh Coal Co., Ltd. | Karmee Bhuiya, (f.), 45. Labourer. | Coal | Not a mining accident. | Deceased was found drowned in a well. The well was properly fenced. Inspection and inquiry made. |
| 13 | 28th March, 5 A.M. | Isabella mine, Nudkhurkhi P. O., Bihar and Orissa. | Isabella Coal Co. | Sugea Kurmi, (f.), 25, Coal-carrier. | Coal | Not a mining accident. | While deceased was sleeping in a hut an oil lamp overturned and set fire to her clothes. She died from her injuries ten days' later. Inspection and inquiry made. |
| 14 | 20th April, 4 P.M. | Ghngus (Nos. 2 and 3 Pits) mine, Chanda P. O., Central Provinces. | Rai Bahadur Bissesardas Daga and Sir M. B. Dadabhoy. | Ram Pochu, (f.), 12, Labourer. | Coal | Not a mining accident. | Whilst assisting in hand shunting a railway wagon deceased was run over and killed. Inspection and inquiry made. |
| 15 | 25th April, 2 A.M. | Kondwadih mine, Kusunda P. O., Bihar and Orissa. | East Indian Coal Co., Ltd. | Gansha Kahar, (m.), 22, Labourer. | Coal | Not a mining accident. | Deceased attempted to sprag a railway wagon which was being hand-shunted. He was caught by the sprag and thrown down, being killed instantly. Inspection and inquiry made. |
| 16 | 6th May, 4-30 P.M. | Pretoria mine, Charanpur P. O., Bengal. | Seebpore Coal Co., Ltd. | Chand Moni, (f.), 1½. | Coal | Not employed. | Deceased crawled on to a pit bank unobserved. She was struck by an empty tub, and fell on to her head, sustaining injuries from which she died shortly afterwards. Inspection and inquiry made. |
| 17 | 13th May, 12-30 P.M. | Parbelia mine, Dishegarh P. O., Bihar and Orissa. | Bengal Coal Co., Ltd. | Munger Roy, (m.), 23, Sinker. | Coal | Not a mining accident. | Deceased was found drowned in a boiler feed tank. The tank was properly fenced. Inspection and inquiry made. |
| 18 | 18th May, 6-30 P.M. | Bahajipani mine, Pench P. O., Central Provinces. | Pench River Coal Co., Ltd. | Sukdass Punka, (m.), 11. | Coal | Not employed | Deceased accompanied his father who was employed in driving a gallery, 9 feet wide, in a coal seam 5' 6" thick. A fall of roof, 13' x 3' x 1' thick, occurred without warning. Deceased was struck by the fall and killed instantly. Inspection and inquiry made. |
| 19 | 24th May, 3-30 P.M. | Phularitand mine, Katrasgarh P. O., Bihar and Orissa. | Phularitand Coal Co., Ltd. | Karu Rajwar, (m.), 40, Labourer. | Coal | Not a mining accident. | Deceased with other coolies was pushing an empty coal wagon into position for loading on a railway siding. Whilst so engaged he slipped and fell, striking his head violently on the ground and sustaining a fracture of the skull. He died two days later. Inspection and inquiry made. |

| | | | | | | | | |
|----|----------------------------------|-------|---|--|--|------------------|------------------------|---|
| 20 | 14th June, between 11-30 P.M. | 7 and | Samla mine, Pandaveswar P. O., Bengal. | Samla-Rendra Collieries, Ld. | Mowri Dassi, (f.), 13. | Coal | Not employed | Deceased was run over by a train of tubs drawn by a locomotive. She received injuries from which she died within a few hours. Inspection and inquiry made. |
| 21 | 17th June, 11 A.M. | | Bokaro mine, Bokaro P. O., Bihar and Orissa. | East Indian and Bengal-Nagpur Railway Company. | Jhori Beldaria, (f.), 5. | Coal | Not employed | Deceased was found drowned in a quarry in an accumulation of water, 3 feet deep. Inspection and inquiry made. |
| 22 | 12th July, 12-30 P.M. | | Lachipur mine, Sitarampur P. O., Bengal. | Jalota Lachipur Coal Co. | Unknown, (f.), 35. | Coal | Not employed | The body of an unknown woman was found floating in the water of a disused shaft. Inspection and inquiry made. |
| 23 | 17th July, 9 A.M. | | Managion mine, Ramtek P. O., Central Provinces. | Central India Mining Co., Ld. | Mani Kisan, (f.), 15, Labourer. | Manganese. | Not a mining accident. | Deceased whilst taking water from a water-logged quarry slipped in and was drowned. |
| 24 | 24th July, 10 A.M. | | Jharia Khas (Angarpathra) mine, Katraagarh P. O., Bihar and Orissa. | Trigunait Bros. | Makhawa Bhuiyan, (f.), 15, Coal-carrier. | Coal | Not a mining accident. | Deceased, whilst taking water from a well, overbalanced, fell into the water and was drowned. Inspection and inquiry made. |
| 25 | 1st August, 2-30 P.M. | | Barmondia mine, Sitarampur P. O., Bengal. | New Beerbhum Coal Co., Ld. | Charu Baurin, (f.), 9. | Coal | Not employed | Deceased was run over by a tub on a surface tram line. She was killed instantly. Inspection and inquiry made. |
| 26 | 12th August, 10-30 A.M. | | Chanda mine, Jharia P. O., Bihar and Orissa. | R. A. Mucadam & Sons | Pagla Gowalia, (f.), 10. | Coal | Not employed | Deceased while bathing had a fit and was drowned. Inspection and inquiry made. |
| 27 | 18th August, 1-50 P.M. | | Seranpur mine, Giridih P. O., Bihar and Orissa. | East Indian Railway Co. | Manku Dhobi, (m.), 35, Shunter. | Coal | Not a mining accident. | While stepping out from between two sets of railway wagons which he had failed to couple deceased was knocked down and run over. He was killed instantly. Inspection and inquiry made. |
| 28 | 11th September, about mid-night. | | Ramjibanpur mine, Sitarampur P. O., Bengal. | Ramjibanpur Coal Co. | Chandra Bauri, (m.), 40. | Coal | Not employed | The body of deceased was found at the bottom of a shaft, 52 feet deep. The shaft was fenced, and it was presumed that he had jumped into the shaft. Inspection and inquiry made. |
| 29 | 16th September, 4-30 P.M. | | Hteinthitthaung mine, Hteinthit P. O., Burma. | Burma Finance and Mining Co., Ltd. | Bonbadur, (m.), 27, Labourer. | Wolfram and Tin. | Not a mining accident. | Deceased sustained fatal injuries through the fall of a tree near an open excavation. |
| 30 | 26th September, | | Jinagora mine, Jharia P. O., Bihar and Orissa. | G. D. Trikamji. | Fanchin Mulla, (f.), 25, Coal carrier. | Coal | Not a mining accident. | Deceased was found drowned in a water-logged quarry, who was subject to hysterical fits. Inspection and inquiry made. |
| 31 | 1st October, 7-30 P.M. | | Central Konda mine, Topoi P. O., Bengal. | Bajjnath Ram Kumar Marwari. | Sewnath Singh, (m.), 12. | Coal | Not employed | Deceased, whilst assisting two coal cutters to make gunpowder cartridges, brought a light near to the explosive and caused an explosion. He sustained serious burns to which he succumbed a few hours later. The two coal cutters were slightly burnt. Inspection and inquiry made. |
| 32 | 6th October, 1 P.M. | | Jogta mine, Sijua P. O., Bihar and Orissa. | Messrs. Agabeg Brothers | Budhin Chamarin, (f.), 12, Bailor. | Coal | Not a mining accident. | Deceased was found drowned in a shallow bathing tank. Inspection and inquiry made. |

APPENDIX II—concl'd.

Fatal Accidents, 1921—concl'd.

| 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—concl'd. | | | | | | | |
| 33 | 3rd October, 12 Noon. | Hermyingyi mine, Tavoy P. O., Burma. | Burma Finance and Mining Co., Ltd. | Law Yin, (m.), 28, Dump Picker. | Wolfram and Tin. | Not a mining accident. | Deceased was killed by a falling tree. |
| 34 | 18th October, 12-30 P.M. | Devada mine, Chipurupalle P. O., Madras. | Vizianagram Mining Co., Ltd. | Karanam Bangary, (m.), 25, Labourer. | Manganese. | Not a mining accident. | Deceased was found drowned in a water-logged part of a quarry. |
| 35 | 25th October, 2 A.M. | Sodepur (Outerop) mine, Sitarampur P. O., Bengal. | Bengal Coal Co., Ltd. | Badhy Barhi, (m.), 40, Carpenter. | Coal | Not a mining accident. | Deceased, against orders, lifted the brake in front of a wagon containing timber, which was being unloaded on a colliery siding. The wagon moved forward and one of the wheels passed over deceased's left leg. He died fifteen days later from shock. Inspection and inquiry made. |
| 36 | Not known | Jogta mine, Sijua P. O., Bihar and Orissa. | Messrs. Agabeg Bros. | Japlal Tali, (m.), 10. | Coal | Not employed | Deceased was found drowned in a shallow bathing tank. Inspection and inquiry made. |
| 37 | 24th December, 2 P.M. | Bhowra mine, Jamadoba P. O., Bihar and Orissa. | Eastern Coal Co., Ltd. | Jamoni Mullick, (f.), 7. | Coal | Not employed | Deceased whilst playing in a shallow quarry, was killed instantly by a fall of stone from a height of 7 feet. Inspection and inquiry made. |

APPENDIX II.

Table No. 2.

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, 1901, during the year 1921.

| 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. | | | |
| A.—COAL. | | | | | | | | | | | | | |
| Assam | Lakhimpur | 2,848 | 14 | 15 | ... | 15 | 76 | 71 | 7 | 78 | 7.77 | ... | 8.27 |
| | Naga Hills | 510 | 1 | 1 | ... | 1 | 1 | ... | 1 | 1 | 4.44 | ... | 1.96 |
| | TOTAL | 3,358 | 15 | 16 | ... | 16 | 77 | 71 | 8 | 79 | 7.42 | ... | 4.76 |
| Baluchistan | Sibi, Khost | 971 | 7 | 6 | ... | 8 | 1 | 1 | ... | 1 | 14.21 | ... | 8.24 |
| | Quetta-Pishin | 168 | 1 | 1 | ... | 1 | ... | ... | ... | ... | 8.47 | ... | 5.95 |
| | TOTAL | 1,139 | 8 | 9 | ... | 9 | 1 | 1 | ... | 1 | 13.22 | ... | 7.80 |
| Bengal | Bankura, Raniganj | 111 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Birbhum „ | 387 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Burdwan „ | 45,315 | 42 | 45 | 8 | 48 | 40 | 32 | 10 | 42 | 1.78 | 0.15 | 1.00 |
| | TOTAL | 45,813 | 42 | 45 | 8 | 48 | 40 | 32 | 10 | 42 | 1.76 | 0.15 | 1.05 |
| Bihar and Orissa | Hazaribagh { Bokaro-Ramgarh Giridih | 11,937 | 2 | 2 | ... | 2 | 3 | ... | 3 | 3 | 0.27 | ... | 0.18 |
| | | 9,421 | 5 | 6 | ... | 6 | 18 | 16 | 2 | 18 | 0.94 | ... | 0.64 |
| | Jharia | 1,844 | 3 | 2 | 1 | 3 | 2 | 1 | 1 | 2 | 2.22 | 1.06 | 1.63 |
| | Manbhum { Jharia | 89,188 | 90 | 123 | 11 | 134 | 70 | 55 | 20 | 75 | 2.49 | 0.28 | 1.50 |
| | | Raniganj | 11,201 | 10 | 14 | ... | 14 | 7 | 6 | 1 | 7 | 2.36 | ... |
| | Palamau, Daltonganj | 288 | 2 | 2 | ... | 2 | ... | ... | ... | ... | 11.98 | ... | 6.94 |
| | Sambalpur, Hingir-Rampur | 675 | ... | ... | ... | ... | 1 | ... | 1 | 1 | ... | ... | ... |
| | Sonthal Parganas { Jainty | 1,248 | 1 | 1 | ... | 1 | ... | ... | ... | ... | 1.56 | ... | 0.60 |
| | | Raniganj | 615 | 1 | 1 | ... | 1 | ... | ... | ... | 4.09 | ... | 1.23 |
| | TOTAL | 126,017 | 114 | 151 | 12 | 163 | 101 | 78 | 28 | 106 | 2.12 | 0.22 | 1.21 |
| Orissa | Southern Shan States | 270 | 1 | 1 | ... | 1 | ... | ... | ... | 15.87 | ... | 3.70 | |
| Central Provinces | Betul | 81 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Chanda, Ballarpur | 2,182 | 6 | 5 | 1 | 6 | 10 | 8 | 3 | 11 | 3.39 | 1.41 | 2.75 |
| | Cbhindwara, Pech Valley | 7,801 | 8 | 7 | 4 | 11 | 14 | 12 | 2 | 14 | 1.34 | 1.55 | 1.41 |
| | Narsinghpur, Mohpani | 2,006 | 1 | 1 | ... | 1 | 16 | 12 | 4 | 16 | 0.79 | ... | 0.50 |
| | Yeotmal | 82 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| TOTAL | 12,152 | 15 | 13 | 5 | 18 | 40 | 32 | 9 | 41 | 1.62 | 1.21 | 1.43 | |
| Punjab | Jhelum | 1,613 | 1 | 1 | ... | 1 | 7 | 5 | 2 | 7 | 0.98 | ... | 0.62 |
| | Mianwali | 167 | ... | ... | ... | ... | 2 | ... | 2 | 2 | ... | ... | ... |
| | Shahpur | 118 | 1 | 1 | ... | 1 | ... | ... | ... | ... | 16.87 | ... | 8.47 |
| TOTAL | 1,898 | 2 | 2 | ... | 2 | 9 | 5 | 4 | 9 | 1.72 | ... | 1.05 | |
| GRAND TOTAL (COAL) | | 190,647 | 197 | 237 | 20 | 257 | 268 | 219 | 59 | 278 | 2.18 | 0.24 | 1.35 |

APPENDIX II—contd.

Table No. 2—contd.

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, 1901, during the year 1921—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. |
| B.—MICA. | | | | | | | | | | | | | |
| Bihar and Orissa | Gnya | 1,659 | ... | ... | ... | ... | 1 | 1 | ... | 1 | ... | ... | ... |
| | Hazariabagh | 10,691 | 4 | 5 | ... | 5 | 5 | 14 | ... | 14 | 0.77 | ... | 0.47 |
| | Manbhum | 8 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Monghyr | 282 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Sambalpur | 90 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | TOTAL | 12,730 | 4 | 5 | ... | 5 | 6 | 15 | ... | 15 | 0.65 | ... | 0.39 |
| Central Provinces | Italgat | 5 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Madras | Kistna | 7 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Nellore | 2,920 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Nilgiris | 25 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Salem | 48 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | TOTAL | 3,000 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Rajputana | Ajmer-Merwara | 808 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | GRAND TOTAL (MICA) | 16,543 | 4 | 5 | ... | 5 | 6 | 15 | ... | 15 | 0.48 | ... | 0.30 |
| C.—MANGANESE ORE. | | | | | | | | | | | | | |
| Bombay | Panch Mahals | 1,821 | ... | ... | ... | ... | 7 | 1 | 6 | 7 | ... | ... | ... |
| Central Provinces | Balaghat | 6,267 | 2 | ... | 2 | 2 | ... | ... | ... | ... | ... | 1.37 | 0.32 |
| | Bhandara | 1,150 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Chhindwara | 1,357 | ... | ... | ... | ... | 2 | 4 | ... | 4 | ... | ... | ... |
| | Nagpur | 5,407 | 2 | 1 | 1 | 2 | 5 | 1 | 4 | 5 | 0.24 | 0.77 | 0.37 |
| | TOTAL | 14,271 | 4 | 1 | 3 | 4 | 7 | 5 | 4 | 9 | 0.07 | 0.85 | 0.25 |
| Madras | Vizagapatam | 1,235 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | GRAND TOTAL (MANGANESE) | 17,327 | 4 | 1 | 3 | 4 | 14 | 6 | 10 | 16 | 0.07 | 0.71 | 0.23 |
| D.—LIMESTONE. | | | | | | | | | | | | | |
| Burma | Northern Shan States | 86 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Central Provinces | Bilaspur | 308 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Jabalpur, kutai | 6,235 | 2 | 2 | ... | 2 | 2 | 1 | 1 | 2 | 0.12 | ... | 0.32 |
| | TOTAL | 6,543 | 2 | 2 | ... | 2 | 2 | 1 | 1 | 2 | 0.41 | ... | 0.33 |
| Panjab | Hoshiarpur | 80 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | GRAND TOTAL (LIMESTONE) | 6,609 | 2 | 2 | ... | 2 | 2 | 1 | 1 | 2 | 0.40 | ... | 0.33 |

APPENDIX II—contd.

Table No. 2—contd.

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, 1901, during the year 1921—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. | | Total number of persons injured. | Below ground. | Above ground. | Below and above ground. | |
| | | | | Below ground. | Above ground. | | Total deaths. | Below ground. | | | | | Above ground. |
| E.—SALT. | | | | | | | | | | | | | |
| Punjab | Jhelum | 827 | ... | ... | ... | ... | 2 | 2 | ... | 2 | ... | ... | ... |
| | Mianwali | 76 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Shahpur | 62 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | GRAND TOTAL (SALT) | 965 | ... | ... | ... | ... | 2 | 2 | ... | 2 | ... | ... | ... |
| F.—GEMS. | | | | | | | | | | | | | |
| Assam | Katha Mogok (Rubies, etc.) | 1,242 | 2 | 1 | 1 | 2 | 5 | ... | 5 | 5 | 1.28 | 2.18 | 1.61 |
| Uttar Pradesh | Ajmer (Beryl) | 11 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | GRAND TOTAL (GEMS) | 1,253 | 2 | 1 | 1 | 2 | 5 | ... | 5 | 5 | 1.28 | 2.18 | 1.60 |
| G.—SLATE. | | | | | | | | | | | | | |
| Bihar and Orissa | Monghyr | 478 | ... | ... | ... | ... | 2 | ... | 2 | 2 | ... | ... | ... |
| Punjab | Gurgaon | 221 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Kangra | 154 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | TOTAL | 853 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | GRAND TOTAL (SLATE) | 853 | ... | ... | ... | ... | 2 | ... | 2 | 2 | ... | ... | ... |
| H.—GOLD. | | | | | | | | | | | | | |
| Bihar and Orissa | Singhbhum | 13 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Assam | Anantapur | 535 | 1 | 1 | ... | 1 | 1 | ... | 1 | 1 | 9.90 | ... | 1.87 |
| | GRAND TOTAL (GOLD) | 548 | 1 | 1 | ... | 1 | 1 | ... | 1 | 1 | 9.90 | ... | 1.82 |
| I.—IRON ORE. | | | | | | | | | | | | | |
| Bihar and Orissa | Singhbhum | 2,280 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| British India | Mandalay | 163 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Northern Shan States | 567 | 1 | 1 | ... | 1 | 1 | 1 | ... | 1 | 3.77 | ... | 1.70 |
| | TOTAL | 770 | 1 | 1 | ... | 1 | 1 | ... | 1 | 1 | 2.36 | ... | 1.30 |
| Uttar Pradesh | Ajmer-Merwara | 80 | ... | ... | ... | ... | 1 | ... | 1 | 1 | ... | ... | ... |
| | GRAND TOTAL (IRON ORE) | 3,080 | 1 | 1 | ... | 1 | 2 | 1 | 1 | 2 | 0.51 | ... | 0.32 |

APPENDIX II—contd.

Table No. 2—contd.

Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, 1901, during the year 1921—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. | | Total number of persons injured. | Below ground. | Above ground. | Below and above ground. | |
| | | | | Below ground. | Above ground. | | Total deaths. | Below ground. | | | | | Above ground. |
| J.—WOLFRAM. | | | | | | | | | | | | | |
| Burma | Mergui | 50 | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| | Tavoy | 1,994 | 7 | 7 | ... | 7 | 9 | 5 | 4 | 0 | 4.20 | ... | 3.51 |
| | TOTAL | 2,044 | 7 | 7 | ... | 7 | 9 | 5 | 4 | 9 | 4.10 | ... | 3.42 |
| GRAND TOTAL (WOLFRAM). | | 2,044 | 7 | 7 | ... | 7 | 9 | 5 | 4 | 9 | 4.10 | ... | 3.42 |
| F.—MOLYBDENITE. | | | | | | | | | | | | | |
| Burma | Tavoy | 8 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| L.—MAGNESITE. | | | | | | | | | | | | | |
| Madras | Salem | 989 | ... | ... | ... | ... | 2 | ... | 2 | 2 | ... | ... | ... |
| M.—CHROMITE. | | | | | | | | | | | | | |
| Baluchistan | Zhob | 453 | ... | ... | ... | ... | 1 | 1 | ... | 1 | ... | ... | ... |
| Bihar and Orissa | Singhbhum | 805 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| GRAND TOTAL (CHROMITE) | | 758 | ... | ... | ... | ... | 1 | 1 | ... | 1 | ... | ... | ... |
| N.—COPPER ORE. | | | | | | | | | | | | | |
| Bihar and Orissa | Singhbhum | 2,837 | 5 | 4 | 1 | 5 | 5 | .. | 5 | 5 | 5.63 | 0.47 | 1.76 |
| Central Provinces | Balaghat | 46 | ... | ... | ... | ... | ... | ... | ... | ... | ... | .. | .. |
| GRAND TOTAL (COPPER ORE) FOR 1921. | | 2,883 | 5 | 4 | 1 | 5 | 5 | ... | 5 | 5 | 5.42 | 0.47 | 1.76 |
| O.—BAUXITE. | | | | | | | | | | | | | |
| Bombay | Kaira | 221 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| P.—CLAY. | | | | | | | | | | | | | |
| Bihar and Orissa | Bhagalpur | 121 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Maubhum | 70 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Palamasa | 386 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| TOTAL | | 577 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Central Provinces | Jabalpur | 857 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Delhi | Delhi | 84 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| GRAND TOTAL (CLAY) | | 1,518 | ... | ... | ... | ... | ... | .. | ... | ... | ... | ... | ... |

APPENDIX II—*contd.*Table No. 2—*concl'd.*Statement of fatal and serious accidents in and about mines regulated by the Indian Mines Act, 1901, during the year 1921—*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. |
| Q.—LEAD ORE. | | | | | | | | | | | | | |
| Burma | Northern Shan States | 1,420 | 5 | 4 | 1 | 5 | 7 | 5 | 2 | 7 | 4.03 | 2.84 | 3.52 |
| Central Provinces | Drug | 84 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| GRAND TOTAL (LEAD ORE) | | 1,454 | 5 | 4 | 1 | 5 | 7 | 5 | 2 | 7 | 3.96 | 2.25 | 3.44 |
| R.—TIN. | | | | | | | | | | | | | |
| Bihar and Orissa | Hazaribagh | 18 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Burma | Morgul (Maliwan) | 673 | 4 | 4 | ... | 4 | ... | ... | ... | ... | 8.97 | ... | 5.96 |
| | Tavoy | 915 | ... | ... | ... | ... | 1 | ... | 1 | 1 | ... | ... | ... |
| | Thaon | 9 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| GRAND TOTAL (TIN ORE) | | 1,613 | 4 | 4 | ... | 4 | 1 | ... | 1 | 1 | 4.69 | ... | 2.48 |
| S.—STEATITE. | | | | | | | | | | | | | |
| Bihar and Orissa | Bhagalpur | 14 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Central Provinces | Jabalpur | 217 | ... | ... | ... | ... | 1 | 1 | ... | 1 | ... | ... | ... |
| Madras | Kurnool | 15 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| GRAND TOTAL (STEATITE) | | 246 | ... | ... | ... | ... | 1 | 1 | ... | 1 | ... | ... | ... |
| T.—APATITE. | | | | | | | | | | | | | |
| Bihar and Orissa | Singbhum | 40 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| U.—BARYTES. | | | | | | | | | | | | | |
| Madras | Kurnool | 27 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| V.—OCHRE. | | | | | | | | | | | | | |
| Central Provinces | Chanda | 33 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| W.—CALCITE. | | | | | | | | | | | | | |
| Bihar and Orissa | Bhagalpur | 8 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| X.—GRAPHITE. | | | | | | | | | | | | | |
| Bihar and Orissa | Bhagalpur | 40 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Central Provinces | Betul | 11 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| GRAND TOTAL (GRAPHITE) | | 51 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| GRAND TOTAL (ALL MINERALS) | | 249,663 | 232 | 267 | 26 | 293 | 328 | 262 | 87 | 349 | 1.72 | 0.26 | 1.17 |

APPENDIX II—contd.

Table No. 13.

Statement of fatal accidents in mines regulated by the Indian Mines Act, 1901, during the year 1921, classified according to the age and sex of the workers.

| MINERAL. | PROVINCE AND MINERAL FIELD. | Number of separate fatal accidents. | NUMBER OF DEATHS. | | | | | | | | TOTAL BELOW AND ABOVE GROUP. |
|-------------|---|-------------------------------------|-------------------|----------------|----------------------|------------|--------------|----------------|----------------------|-----------|------------------------------|
| | | | BELOW GROUP. | | | | ABOVE GROUP. | | | | |
| | | | Adult males. | Adult females. | Children (under 13). | TOTAL. | Adult males. | Adult females. | Children (under 13). | TOTAL. | |
| | Assam, Lakhimpur | 14 | 15 | ... | ... | 15 | ... | ... | ... | ... | 15 |
| | Naga Hills | 1 | 1 | ... | ... | 1 | ... | ... | ... | ... | 1 |
| | TOTAL ASSAM | 15 | 16 | ... | ... | 16 | ... | ... | ... | ... | 16 |
| | Baluchistan { Sibi Khoat | 7 | 8 | ... | ... | 8 | ... | ... | ... | ... | 8 |
| | { Quetta-Fishin | 1 | 1 | ... | ... | 1 | ... | ... | ... | ... | 1 |
| | TOTAL BALUCHISTAN | 8 | 9 | ... | ... | 9 | ... | ... | ... | ... | 9 |
| | Bengal, Burdwan, Raniganj | 42 | 38 | 7 | ... | 45 | 2 | 1 | ... | 3 | 48 |
| | Bihar and Orissa. { Hazari-bagh. { Bokaro | 2 | 2 | ... | ... | 2 | ... | ... | ... | ... | 2 |
| | { Ramgarh | 5 | 5 | 1 | ... | 6 | ... | ... | ... | 1 | 6 |
| | { Giridih | 3 | 2 | ... | ... | 2 | 1 | ... | ... | 1 | 3 |
| | { Jharria | 90 | 90 | 33 | ... | 123 | 7 | 4 | ... | 11 | 134 |
| | Manbhum, Jharria | 10 | 12 | 2 | ... | 14 | ... | ... | ... | ... | 14 |
| | Manbhum, Raniganj | 2 | 2 | ... | ... | 2 | ... | ... | ... | ... | 2 |
| | Palamau, Daltonganj | 1 | ... | 1 | ... | 1 | ... | ... | ... | ... | 1 |
| | Sonthal Parganas { Jainty | 1 | ... | ... | ... | 1 | ... | ... | ... | ... | 1 |
| | { Raniganj | 1 | 1 | ... | ... | 1 | ... | ... | ... | ... | 1 |
| | TOTAL BIHAR AND ORISSA | 114 | 114 | 37 | ... | 151 | 8 | 4 | ... | 13 | 163 |
| | Burma, Southern Shan States | 1 | 1 | ... | ... | 1 | ... | ... | ... | ... | 1 |
| | Central Provinces { Chanda | 6 | 4 | 1 | ... | 5 | 1 | ... | ... | 1 | 6 |
| | { Chhindwara | 8 | 6 | 1 | ... | 7 | 4 | ... | ... | 4 | 11 |
| | { Narsinghpur | 1 | 1 | ... | ... | 1 | ... | ... | ... | ... | 1 |
| | TOTAL CENTRAL PROVINCES | 15 | 11 | 2 | ... | 13 | 5 | ... | ... | 5 | 18 |
| | Panjab { Jholam | 1 | 1 | ... | ... | 1 | ... | ... | ... | ... | 1 |
| | { Shahpur | 1 | 1 | ... | ... | 1 | ... | ... | ... | ... | 1 |
| | TOTAL PANJAB | 2 | 2 | ... | ... | 2 | ... | ... | ... | ... | 2 |
| COAL | TOTAL COAL | 197 | 191 | 46 | ... | 237 | 15 | 5 | ... | 20 | 257 |

APPENDIX II—*contd.*Table No. 3—*concl'd.*

Statement of fatal accidents in mines regulated by the Indian Mines Act, 1901, during the year 1921, classified according to the age and sex of the workers—*concl'd.*

| MINERAL | PROVINCE AND MINERAL FIELD. | Number of separate fatal accidents. | NUMBER OF DEATHS. | | | | | | | | TOTAL BELOW AND ABOVE GROUPS. |
|--------------------------------------|--|-------------------------------------|-------------------|----------------|----------------------|--------|---------------|----------------|----------------------|--------|-------------------------------|
| | | | BELOW GROUPS. | | | | ABOVE GROUPS. | | | | |
| | | | Adult males. | Adult females. | Children (under 15). | TOTAL. | Adult males. | Adult females. | Children (under 15). | TOTAL. | |
| NICKEL | Bihar and Orissa, Hazaribagh | 4 | 3 | 2 | ... | 5 | ... | ... | ... | .. | |
| MANGANESE | Central Provinces { Balaghat Nagpur | 2 | ... | ... | ... | . | ... | 2 | ... | 2 | 2 |
| | | 2 | 1 | ... | ... | 1 | 1 | ... | ... | 1 | 3 |
| | TOTAL MANGANESE | 4 | 1 | ... | ... | 1 | 1 | 2 | ... | 3 | 4 |
| LIMESTONE | Central Provinces, Jabalpur | 2 | 1 | 1 | ... | 2 | ... | ... | ... | .. | 2 |
| LEAD ORE | Burma, Northern Shan States | 5 | 4 | ... | ... | 4 | 1 | ... | ... | 1 | 5 |
| GOLD | Madras, Anantapur | 1 | 1 | ... | ... | 1 | ... | ... | ... | ... | 1 |
| IRON ORE | Burma, Northern Shan States | 1 | 1 | ... | ... | 1 | ... | ... | ... | ... | 1 |
| WOLFRAM | Burma, Tavoy | 7 | 7 | ... | ... | 7 | ... | ... | ... | .. | 7 |
| GEMS (RUBIES) | Burma, Katha, Mogok | 2 | 1 | ... | ... | 1 | 1 | ... | ... | 1 | 2 |
| COPPER | Bihar and Orissa, Singhbhum | 5 | 4 | ... | ... | 4 | ... | 1 | ... | 1 | 5 |
| TIN | Burma, Mergui | 4 | 4 | ... | ... | 4 | ... | ... | ... | ... | 4 |
| GRAND TOTAL (ALL MINERALS) | | 232 | 218 | 49 | ... | 267 | 18 | 8 | ... | 25 | 293 |

APPENDIX II—*conold.*

Table No. 4.

Statement of fatal accidents in mines regulated by the Indian Mines Act, 1901, during the year 1921, 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. | Irruptions of water or falling into water. | Hurlage. | Miscellaneous below ground. | Surface. | Total deaths. | Below ground. | Above ground. | Below and above ground. |
| Coal | 197 | 10 | 75 | 75 | 18 | ... | 18 | .. | 32 | 10 | 14 | 257 | 2.18 | 0.24 | 1.35 |
| Lead Ore | 5 | ... | 1 | 1 | ... | ... | ... | ... | ... | 2 | 1 | 5 | 3.06 | 2.25 | 3.44 |
| Gold | 1 | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | 1 | 9.00 | ... | 1.82 |
| Iron Ore | 1 | ... | ... | 1 | ... | ... | ... | .. | ... | ... | ... | 1 | 0.51 | ... | 0.32 |
| Limestone | 2 | ... | ... | 2 | ... | ... | .. | ... | ... | ... | ... | 2 | 0.40 | ... | 0.30 |
| Manganese Ore | 4 | ... | ... | 1 | ... | ... | ... | ... | ... | ... | 3 | 4 | 0.07 | 0.71 | 0.23 |
| Mica | 4 | ... | ... | 3 | ... | ... | 2 | ... | ... | ... | ... | 5 | 0.48 | ... | 0.30 |
| Gems (Rubies) | 2 | ... | ... | 1 | ... | ... | .. | ... | ... | ... | 1 | 2 | 1.20 | 2.18 | 1.00 |
| Tin Ore | 4 | ... | ... | 4 | ... | ... | ... | ... | ... | ... | ... | 4 | 4.69 | ... | 2.48 |
| Wolfram | 7 | ... | 5 | 2 | ... | ... | ... | ... | ... | ... | ... | 7 | 4.10 | ... | 3.42 |
| Copper Ore | 5 | ... | ... | 1 | 3 | ... | ... | ... | ... | ... | 1 | 5 | 5.42 | 0.47 | 1.73 |
| TOTAL 1921 | 232 | 15 | 81 | 91 | 22 | ... | 20 | ... | 32 | 12 | 20 | 293 | 1.72 | 0.26 | 1.17 |
| TOTAL PRECEDING YEAR | 177 | 5 | 48 | 40 | 44 | 8 | 12 | 8 | 16 | 11 | 33 | 225 | 1.33 | 0.40 | 0.96 |
| DIFFERENCE | +55 | +10 | +33 | +51 | -22 | -8 | +8 | -8 | +16 | +1 | -13 | +68 | +0.39 | -0.14 | +0.21 |

APPENDIX III.

PROSECUTIONS UNDER THE INDIAN MINES ACT, 1901.

Statement of prosecutions instituted under the Indian Mines Act, 1901, during the year 1921.

| PROVINCE. | District. | Number of prosecutions. | Number of persons prosecuted. | Number convicted. | Numbers of rules and sections of the Act contravened. | REMARKS. |
|-------------------|-----------------|-------------------------|-------------------------------|---|---|---------------------------|
| Bihar and Orissa | Bokaro-Ramgarh. | 1 | 2 | ... | Section 20, Rule 3 of Notification No. 864-68-20, dated 10th March 1904. | <i>Withdrawn.</i> |
| | Giridih | 1 | 3 | 1 | Section 20, Rules 1, 3 and 4 of Notification No. 864-68-20, dated 10th March 1904. | <i>Accused absconded.</i> |
| | Hazaribagh | 2 | 1 | 1 | Section 20, Rule 1 of Notification No. 11793-103, dated 30th December 1908, as amended by Notification No. 5072-113, dated 1st July 1916. | |
| | Do. | 1 | 1 | ... | | |
| | Do. | 1 | 2 | 2 | | |
| | Do. | 1 | 1 | 1 | | |
| | Do. | 1 | 1 | 1 | | |
| | Do. | 1 | 1 | 1 | | |
| | Do. | 1 | 1 | 1 | | |
| | Do. | 1 | 1 | 1 | | |
| | Manbhum | 1 | 1 | 1 | | |
| | Do. | 1 | 1 | 1 | | |
| | Do. | 4 | 1 | 1 | | |
| | Do. | 1 | 2 | 2 | Section 20, Rules 1, 7 and 19 of Notification No. 864-68-20, dated 10th March 1904. | |
| | Do. | 1 | 2 | 2 | Section 20, Rule 12 of Notification No. 864-68-20, dated 10th March 1904. | |
| | Do. | 1 | 1 | 1 | | |
| | Do. | 1 | 1 | 1 | Section 20, Rule 3 of Bihar and Orissa Government Notification No. 11761-M., dated 23rd August 1918. | |
| | Do. | 1 | 5 | 2 | Section 20, Rule 3 of Notification No. 864-68-20, dated 10th March 1904. | |
| | Do. | 1 | 1 | 1 | | |
| | Do. | 1 | 4 | 4 | | |
| | Do. | 1 | 3 | 3 | | |
| | Do. | 1 | 2 | 2 | Section 20, Rules 3 and 19 of Notification No. 864-68-20, dated 10th March 1904, and Section 21, Special Rule 22. | |
| | Do. | 1 | 1 | ... | Section 16 | <i>Acquitted.</i> |
| Do. | 1 | 1 | ... | | | |
| Do. | 1 | 2 | 2 | Section 20, Rule 19 of Notification No. 864-68-20, dated 10th March 1904. | <i>Acquitted.</i> | |
| Do. | 1 | 1 | ... | Section 21, Special Rules 5, 77 and 78 | <i>Accused absconded.</i> | |
| Do. | 1 | 1 | ... | " " " Rule 21 | <i>Accused absconded.</i> | |
| Do. | 1 | 3 | ... | " " " Rules 5 and 18 | <i>Accused absconded.</i> | |
| Do. | 1 | 3 | 3 | " " " " 5, 7 and 15 | <i>Accused absconded.</i> | |
| Sonthal Parganas. | 1 | 1 | ... | " " " Rule 7b | <i>Accused absconded.</i> | |

APPENDIX III—*concl.*PROSECUTIONS UNDER THE INDIAN MINES ACT, 1901—*concl.*

Statement of prosecutions instituted under the Indian Mines Act, 1901, during the year 1921—*concl.*

| PROVINCE. | District. | Number of prosecutions. | Number of persons prosecuted. | Number convicted. | Numbers of rules and sections of the Act contravened. | REMARKS. |
|-----------|-----------|-------------------------|-------------------------------|-------------------|--|--|
| Bengal | Burdwan | 1 | 2 | 1 | Section 20, Rules 1 and 20 of Notification No. 864-68-20, dated 10th March 1904, and Rule 3 of Government of Bengal Notification No. 3970-Com., dated 28th August 1918. | |
| | Do. | 1 | 2 | 2 | Section 20, Rules 2 (g) and 4 of Notification No. 864-68-20, dated 10th March 1904. | |
| | Do. | 1 | 2 | 2 | Section 20, Rules 2 (g), 4 and 20 of Notification No. 864-68-20, dated 10th March 1904. | |
| | Do. | 1 | 1 | 1 | } Section 20, Rules 3, 4 and 19 of Notification No. 864-68-20, dated 10th March 1904. | |
| | Do. | 1 | 2 | 2 | | |
| | Do. | 1 | 3 | 1 | Section 20, Rule 8 of Notification No. 11793-103, dated 30th December 1908, and Rule 4 of Notification No. 864-68-20, dated 10th March 1904 and Section 21, Special Rule 87. | |
| | Do. | 1 | 2 | 1 | Section 20, Rule 19 of Notification No. 864-68-20, dated 10th March 1904. | |
| | Do. | 1 | 1 | 1 | Section 20, Rule 1 of Notification No. 11793-103, dated 30th December 1908, as amended by Notification No. 5072-113, dated 1st July 1916. | |
| | Do. | 1 | 1 | ... | Section 21, Special Rule 4 . . . | <i>Accused absconded.</i> |
| | Do. | 1 | 2 | ... | " " " Rules 4 and 5 . . . | <i>One accused absconded, the other was acquitted.</i> |
| | Do. | 1 | 2 | ... | " " " " 4, 5, 81 and 85 . . . | <i>Accused absconded.</i> |
| | Do. | 1 | 1 | ... | " " " Rule 5 . . . | <i>Acquitted.</i> |
| | Do. | 1 | 1 | 1 | " " " " 5 . . . | |

APPENDIX IV.
MISCELLANEOUS.

Statement No. 1.
List of Inspection Circles.

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

Statement No. 2.

Names of persons to whom first and second class certificates to manage a coal mine were granted during the year 1921.

(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. |
|---------------------------------------|----------------------------|------------------------------|-----------------------------|------------------------------|
| Morrell, Bert | 260 | 7th January 1921 | 678 | 30th July 1919. |
| Bartley, William | 261 | Ditto | 506 | 26th July 1918. |
| Sellers, Douglas | 262 | Ditto | 3,632 | 9th June 1910. |
| Millar, Leander | 263 | Ditto | 221 | 22nd July 1915. |
| Walters, Cyril Vernon | 264 | Ditto | 107 | 2nd February 1914. |
| Farrer, John Richard | 265 | Ditto | 3,038 | 20th August 1907. |
| Crawford, Robert White | 266 | Ditto | 2,984 | 14th June 1907. |
| Davies, David John | 267 | Ditto | 77 | 2nd February 1914. |
| Atkinson, Cecil Arthur | 268 | 18th January 1921 | 2,898 | 7th January 1907. |
| Allan, John Donaldson Blair | 269 | 14th February 1921 | 578 | 27th January 1919. |
| Bell, Joseph | 270 | Ditto | 631 | 30th July 1919. |
| Ensson, John | 271 | Ditto | 245 | 26th January 1916. |
| Wetherell, Thomas Augustus | 272 | 23rd December 1921 | 702 | 30th July 1919. |
| Clubb, Alexander | 273 | Ditto | 3,583 | 9th June 1910. |
| Liddoll, Henry Norman | 274 | Ditto | 4,050 | 10th June 1912. |
| Orr, Archibald | 275 | Ditto | 683 | 30th July 1919. |
| Lewis, Robert McLellan | 276 | Ditto | 744 | 22nd January 1920. |
| Lorimer, William Wallace | 277 | Ditto | 601 | 27th January 1919. |
| Wood, Robert | 278 | Ditto | 854 | 11th August 1920. |
| Fisher, Charles Frank | 279 | Ditto | 2,367 | 13th May 1904. |

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 1921—*contd.*

(b) Certificates of competency.

FIRST CLASS.

| NAME. | No. of certificate. | Date of certificate. | REMARKS. |
|--|---------------------|----------------------|----------|
| Campbell, James Brown | 121 | 31st March 1921. | |
| Adamson, Cecil | 122 | Ditto. | |
| Hyde, George William Albert | 123 | Ditto. | |
| Connolly, William John | 124 | Ditto. | |
| Kitchen, Phillip H. | 125 | Ditto. | |
| Aukim, Burton E. | 126 | Ditto. | |
| Hogg, James Sneddon | 127 | Ditto. | |
| Banerji, Bojoy Krishna | 128 | Ditto. | |
| Black, Henry | 129 | Ditto. | |
| Durham, Vivian Clyde | 130 | Ditto. | |
| Shoehan, Frederic George | 131 | Ditto. | |
| Conterji, Nriya Gopal | 132 | Ditto. | |
| Hutton, Alfred Rowland | 133 | Ditto. | |
| Mukborji, Dharendra Nath | 134 | Ditto. | |
| Naug, Durga Pada | 135 | Ditto. | |
| Slator, Robert Anderton Foxcroft | 136 | Ditto. | |
| Banerji, Niderson | 137 | Ditto. | |

SECOND CLASS.

| | | | |
|--|-----|---------------------|--|
| Villiers, Rudolph Rohling | 214 | 31st March 1921. | |
| Chowdhuri, Surendra Chandra | 215 | Ditto. | |
| Banerji, Chandra Mohan | 216 | Ditto. | |
| Banerji, Harendra Chandra | 217 | Ditto. | |
| Newton, Vincent Sanderson | 218 | Ditto. | |
| Chakravarti, Dharmapada | 219 | Ditto. | |
| Banerji, Sudhiraj Kumar | 220 | 23rd December 1921. | |
| Gue, Bama Charan | 221 | Ditto. | |
| Mair, George Dennis | 222 | Ditto. | |
| Rawal, Girija Shankar, S. | 223 | Ditto. | |
| Gangull, Manindra Nath | 224 | Ditto. | |
| Roy, Debi Prasanna | 225 | Ditto. | |
| Boss, Sudhinda Narayan | 226 | Ditto. | |
| Chakravarti, Panchananda | 227 | Ditto. | |
| Chowdhury, Bhaskorendra | 228 | Ditto. | |
| Trovodi, Ambalal Keshavlal | 229 | Ditto. | |
| Pandaya, Praujivan Hargovind | 230 | Ditto. | |
| Banerji, Jitendra Nath | 231 | Ditto. | |
| Son Gupta, Jitendra Nath | 232 | Ditto. | |

APPENDIX IV—*contd.*MISCELLANEOUS—*contd.*Statement No. 2—*concl.*

Names of persons to whom first and second class certificates to manage a coal mine were granted during the year 1921—*concl.*

(b) Certificates of competency.

SECOND CLASS.

| NAME. | No. of certificate. | Date of certificate. | REMARKS. |
|--|---------------------|----------------------|----------|
| Mukherji, Balaram | 233 | 23rd December 1921. | |
| Ghosh, Niranjan | 234 | Ditto. | |
| Chakravarti, Durgapada | 235 | Ditto. | |
| De, Bhagabati Charan | 236 | Ditto. | |
| Madath, Hoveceph | 237 | Ditto. | |
| Gade, Percival Solomon | 238 | Ditto. | |
| Dutt, Churu Chandra | 239 | Ditto. | |
| Roy, Aswini Kumar | 240 | Ditto. | |
| Bhattacharji, Umesh Chandra | 241 | Ditto. | |
| Das, Sudhir Chandra | 242 | Ditto. | |
| Chisholm, Joseph | 243 | Ditto. | |
| Paul, Dobl Prosad | 244 | Ditto. | |
| Robson, Bertie | 245 | Ditto. | |
| Kouwon, Charles Glendowe | 246 | Ditto. | |
| Ganguli, Krishnendra Nath | 247 | Ditto. | |
| Pallit, Basanta Kumar | 248 | Ditto. | |
| Banerji, Atul Krishna | 249 | Ditto. | |
| Mukherji, Jitendra Nath | 250 | Ditto. | |
| Chatterji, Tara Pado | 251 | Ditto. | |
| Mukherji, Kamala Kanta | 252 | Ditto. | |
| Dey, Pran Krishna | 253 | Ditto. | |
| Dhar, Radhika Ranjan | 254 | Ditto. | |
| Kothari, Nehalchand Liladhar | 255 | Ditto. | |
| Bose, Sachindra Nath | 256 | Ditto. | |
| Chowdhuri, Anil Bhusan | 257 | Ditto. | |
| Diwas, Tapesh Chandra | 258 | Ditto. | |
| Chakrabarti, Jogendra Nath | 259 | Ditto. | |
| Chowdhuri, Panchanan | 260 | Ditto. | |
| Mukherji, Rama Prosad | 261 | Ditto. | |
| Bhattacharji, Manoran | 262 | Ditto. | |
| Sain, Pran Dhon | 263 | Ditto. | |
| Sircar, Satish Chandra | 264 | Ditto. | |
| Mukherji, Nitya Hari | 265 | Ditto. | |
| Roy, Rakhal Chandra | 266 | Ditto. | |

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

Statement No. 3.

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

| Name of Institution and Degree or Diploma. | Date. |
|--|----------------------|
| University of Birmingham in respect of its Degree of B.Sc. in Mining and Diploma in Mining. | 11th June 1904. |
| University College of Bristol in respect of its Senior Diploma in Mining. | 16th September 1904. |
| University of Cambridge in respect of its Diploma in Mining Engineering. | 6th June 1905. |
| University of Durham in respect of its Degree of B.Sc. in Mining. | 21st December 1903. |
| Durham College of Science in respect of its Diploma in Mining. | 29th June 1904. |
| University of Glasgow in respect of its Degree and Diploma in Mining. | 23rd September 1904. |
| Glasgow and West of Scotland Technical College in respect of its Diploma in Mining. | 23rd June 1904. |
| University of Leeds in respect of its Degree of B.Sc. in Mining and Diploma in Mining. | 21st November 1904. |
| University of London in respect of its B.Sc. Degree in Mining for Internal Students, subject to the Degree being endorsed by the University with a certificate of four months' practical experience in a mine. | 9th June 1905. |
| University of London in respect of its B.Sc. Degree in Mining for External Students, subject to the Degree being endorsed by the University with a certificate of four months' practical experience in a mine. | 7th August 1906. |
| Royal School of Mines in respect of its Associateship in Mining. | 24th March 1904. |
| University of Oxford in respect of its Diploma B. for Colliery Engineers (in Scientific Engineering and Mining subjects). | 11th February 1905. |
| University College of Sheffield in respect of its Diploma in Mining. | 15th July 1904. |
| University College of South Wales and Monmouthshire in respect of its Diploma in Mining. | 19th April 1904. |
| Wigan Mining and Technical College in respect of its Diploma in Mining. | 26th August 1904. |
| Bengal Engineering College, Sibpur, in respect of its Diploma in Mining. | 22nd February 1907. |
| Merchant Venturers' Technical College, Bristol, in respect of its Diploma in Mining Engineering. | 5th October 1905. |
| Victoria University of Manchester in respect of its Degree and Certificate of Mining. | 14th February 1906. |
| University College of Nottingham in respect of its Diploma in Mining Engineering. | 28th March 1906. |
| University of Sheffield in respect of its Degree of Bachelor of Engineering (Mining). | 30th June 1906. |
| Heriot-Watt College in respect of its Certificate in Mining Engineering. | 16th January 1908. |
| Calcutta University in respect of its Degree of Bachelor of Engineering in the Branch of Mining Engineering. | 24th September 1910. |
| Harvard University, Cambridge, Massachusetts, in respect of its Diploma in Mining Engineering. | 22nd February 1913. |
| Columbia University, New York, in respect of its Degree of Engineer of Mines. | 13th March 1915. |
| California University, United States of America, in respect of its Degree of Mining Engineer. | 19th February 1916. |
| Pittsburg University, United States of America, in respect of its Degree of Engineer of Mines. | 19th February 1916. |
| Leland Stauford Junior University, California, in respect of its Degree of Bachelor of Arts in Geology and Mining. | 10th August 1918. |

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

Statement No. 4.

BENGAL ENGINEERING COLLEGE.

THE MINING CLASSES.

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

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

Three classes of students are admitted—

Occasional—who are admitted to receive training in connection with private business.

Regular—who need have no experience of mining.

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

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

Admissions are made as follows :—

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

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

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

Special students—

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

Admission qualifications to A, B and C—

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

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

Scholarships awarded by the Bengal Government—

For Regular students—

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

Two of Rs. 12 monthly.

Three of „ 6 „

Stipends awarded by the Bihar and Orissa Government—

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

For Special students—Awarded by Bengal Government.

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

One of Rs. 50 for Europeans.

One or two of Rs. 25 for Indians.

These amounts should be sufficient to maintain a special student resident at the College.

For further particulars apply for the Mining Classes Circular.

B. HEATON,

*Principal, Bengal Engineering College,
Botanic Garden P. O.*

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

Statement No. 5.

MINING INSTRUCTION IN BENGAL.

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

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

- (1) The principles of Coal Mining, 1922-23, 1924-25, etc.
- (2) The principles of Mechanical Engineering of Coal Mines, 1921-22, 1923-24, etc.

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

Programme for Session 1921-23.

Lectures on the principles of Mechanical Engineering of Coal Mines will be delivered in English as follows:—

RANIGANJ COALFIELD.

| | | | |
|----------------|---|-------------|-----------|
| Deshergarh ... | Lecture-room near Club ... | Wednesdays | 5-30 P.M. |
| Raniganj ... | Bengal Coal Co., Ltd., Zamindary office ... | Thursdays | 5-0 " |
| Jamuria ... | Chief Mining Engineer's Office, Sibpur Colliery ... | Fridays ... | 5-30 " |

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

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

The following Local Committees have been appointed:—

RANIGANJ COALFIELD.

| <i>Deshergarh Centre.</i> | <i>Jamuria Centre.</i> | <i>Raniganj Centre.</i> |
|------------------------------------|------------------------------------|--|
| Mr. H. Lancaster, <i>Chairman.</i> | Mr. H. Lancaster, <i>Chairman.</i> | Mr. H. Lancaster, <i>Chairman.</i> |
| „ J. B. Wardlaw (Deshergarh). | „ P. S. Keelan (Charanpur). | „ P. S. Keelan (Charanpur). |
| „ Geo. Miller (Sitarampur). | „ G. S. Castles (Charanpur). | „ A. T. Creet (Kalipahari). |
| „ F. Owen (Deshergarh). | „ D. N. Archibald (Sripur). | „ W. J. Rees (Raniganj). |
| Babu U. N. Mandal (Deshergarh). | „ W. S. Elphinstone (Asansol). | Babu Promotho Nath Hazra (Toposi). |
| „ P. C. Tarafdar (Mugma). | Babu S. N. Banerjee (Faridpur). | „ Purna Chandra Bagchi (Kalipahari). |
| „ S. N. Ghosh (Barakar). | Colliery, Charanpur P. O.). | „ S. Chaudhuri (Jamehari, Raniganj). |

B. HEATON,

*Secretary, Mining Education Advisory Board,
B. E. College, Botanic Garden P. O.,
Howrah.*

APPENDIX IV—*contd.*MISCELLANEOUS.—*contd.*Statement No. 5—*contd.*

MINING INSTRUCTION IN THE COALFIELDS OF BENGAL.

SYLLABUS OF THE COURSE OF INSTRUCTION.

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

THE PRINCIPLES OF COAL MINING.

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

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

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

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

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

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

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

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

9. *Safety lamps*.—Principle of the safety lamps ; Sir Humphrey Davy's experiment, types of safety lamps ; firedamp detectors.

THE PRINCIPLES OF MECHANICAL ENGINEERING OF COAL MINES.

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

2. *Steam, Electricity and Compressed air*.—Theory of steam boilers and their fittings ; the steam engine ; the dynamo ; the electric motor ; the air compressor.

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

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

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

6. *Surface arrangements*.—Headframes and pulleys ; receiving frames ; keps ; arrangements of roads on pit bank ; tipplers ; simple screening and sizing ; railway sidings ; aerial rope ways.

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

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

BENGAL ENGINEERING COLLEGE,

BOTANIC GARDEN P. O.,

The 10th August 1921.

B. HEATON,
Secretary.

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

Statement No. 6.

MINING INSTRUCTION IN BIHAR AND ORISSA.

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

The improved syllabus of lectures is being introduced this year.

The following is an abstract of the full three year course—

First year.—(1) Mathematics. (2) Elementary Science.

Second year.—(1) Elementary Mechanics. (2) Mechanical Drawing.

Third year.— { (1) Elementary Mining Surveying.
(2) Mechanical and Electrical Engineering.

Copies of the detailed syllabus may be obtained from the Secretary and the lecturer.

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

Programme for Session 1921-22.

Lectures on Mathematics and Elementary Science will be delivered in English on two nights each week at the following centres on days and hours to be fixed by the Lecturer.

Jharia • ... Lecture-room near Club.

Sijua Lecture-room near Station.

The Mining Lecturer will deliver during the current session only the series of lectures on the Principles of Mechanical Engineering of Coal Mines as laid down in the old course one night weekly. These will be attended by students who have qualified in the other part of the old course, namely, in the Principles of Coal Mining.

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

The following Local Committees have been appointed:—

JHARIA COALFIELD.

Jharia Centre.

Mr. F. L. G. Simpson, Chairman.
 „ R. G. M. Bathgate (Jamadoba).
 „ J. Murray (Kustore).
 „ J. B. Argyle (Lodna).
 „ R. Barrowman (Standard Coal Company, Jharia).
 Babu Jhaveri Lal Kalayan Rai Dholakia (Jyrampur Colliery, Kusunda P. O.).
 „ Narendra Nath Sarkar (South Kujama, Jharia).

Sijua Centre.

Mr. F. L. G. Simpson, Chairman.
 „ A. A. Agabeg (Sijua).
 „ H. Heron (Bhalgora, Jharia P. O.).
 „ H. M. Bull (Bansjora).
 „ G. C. Leach (Sijua P. O.).
 Babu Trikumdas Doyal (Bullihari Colliery, Kusunda P. O.).
 „ Meghji Bhimji Relia (Angarpatra).

B. HEATON,

*Secretary, Mining Education Advisory Board,
 B. E. College, Botanic Garden P. O.,*

Howrah.

The 15th August, 1921.

APPENDIX IV—*contd.*MISCELLANEOUS—*contd.*Statement No. 6—*contd.*

MINING INSTRUCTION IN THE COALFIELDS OF BIHAR AND ORISSA.

SYLLABUS OF THE COURSE OF INSTRUCTION.

FIRST AND 2ND YEAR COURSES.

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

ELEMENTARY SCIENCE.

Physics.—Volume of displacement, Balances, Density, Specific gravity bottle, Fluid pressure, Hydrometer, Syphon, Barometer, Ideas of forces, Equilibrium of three forces, centres of gravity, Friction, Thermometer, Expansion due to heat, Latent heat of steam, Properties of solids, Liquids and gases, Boyles' Law, Hydrostatics, Elements of electricity and Magnetism, Electrical units.

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

Mechanics.—Units of Mass, Length and time, Levers, Pullies, Wedges, Gearing, Simple Machines, Equilibrium, Units of work and energy, Horse Power.

Mechanical Drawing.—Conventional signs, Construction of Scales, Nuts, Bolts, Screw threads, simple parts of machines, Engines and Pumps.

THIRD YEAR COURSE.

Mining Surveying.—Use of pens, Scales, protractors, Surveying by means of the chain only. The Miners dial. Loose needle surveying. Fixed needle surveying. Levelling, Field books, Adjustment of Instruments.

THE PRINCIPLES OF COAL MINING.

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

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

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

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

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

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

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

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

9. *Safety lamps.*—Principle of the safety lamps; Sir Humphrey Davy's experiment; types of safety lamps; firedamp detectors.

THE PRINCIPLES OF MECHANICAL AND ELECTRICAL ENGINEERING OF COAL MINES.

1. *Applied Mechanics.*—The practical application of the principles taught in the 1st and 2nd years.

2. *Steam, Electricity and Compressed air.*—Theory of steam boilers and their fittings; the steam engine; the dynamo; the electric motor; Electric Lighting and wiring; the air compressor.

APPENDIX IV—*contd.*MISCELLANEOUS—*contd.*Statement No. 6—*concl.*

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

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

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

6. *Surface arrangements*.—Headframes and pulleys; receiving frames; kops; arrangements of roads on pit bank; tippers; simple screening and sizing; railway sidings; aerial ropeways.

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

B. HEATON,

Secretary.

BENGAL ENGINEERING COLLEGE ;

The 15th August, 1921.

Statement No. 7.

DEPARTMENT OF MINES IN INDIA.

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

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

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

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

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

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

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

(5) The examinations will be advertised at least four months before the date of the examinations and applications on the form prescribed by the Board of Examiners supported by original certificates as to the experience and character, and fees will be received up to a date, duly advertised not less than one month prior to the examinations. No application which is not on the prescribed form will be considered by the Board. No application which is not supported by the certificate and fees referred to above will be considered by the Board if submitted after the advertised date for receiving such applications and fees.

(6) The subjects for examination shall be :—

(a) *Arithmetic and handwriting.*

(b) *Practical and theoretical coal-mining, including surface and under ground arrangements, sinking, timbering, ventilation, gases met with in coal-mines, a know-*

APPENDIX I.
STATISTICS OF MINES AND MINERALS.

Table No. 1.

Number of mines regulated by the Indian Mines Act, 1901, number of workers and output of minerals, during the year 1921.

| 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. Tons. | AVERAGE NUMBER OF PERSONS EMPLOYED DAILY IN AND ABOUT THE MINES. | | | | | | | | Grand total below and above ground. |
|-------------|-----------------------------|---|-----------------------------|---------------------------------|--|------------------------|------------------------|--|----------------|----------------------|---------------------|---------------|----------------|----------------------|---------------------|-------------------------------------|
| | | | Worked by mechanical power. | Not worked by mechanical power. | Number of mines inspected. | Number of inspections. | | BELOW GROUND. | | | | ABOVE GROUND. | | | | |
| | | | | | | | | Adult males. | Adult females. | Children (under 13). | Total below ground. | Adult males. | Adult females. | Children (under 13). | Total above ground. | |
| Assam | Lakhimpur | 5 | 4 | 1 | 7 | 20 | 269,198 | 1,732 | 199 | ... | 1,931 | 638 | 201 | 78 | 917 | 2,848 |
| | Naga Hills | 1 | ... | 1 | 2 | 4 | 42,824 | 224 | ... | 1 | 225 | 268 | 14 | 8 | 285 | 510 |
| | Sibsagar | ... | ... | ... | 1* | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | TOTAL | 6 | 4 | 2 | 10 | 25 | 312,022 | 1,956 | 199 | 1 | 2,156 | 906 | 215 | 81 | 1,202 | 3,358 |
| Baluchistan | Sibi, Khost | 8 | 1 | 7 | ... | ... | 31,253 | 563 | ... | ... | 563 | 388 | 3 | 17 | 408 | 971 |
| | Quetta-Pishin | 8 | ... | 8 | ... | ... | 10,902 | 118 | ... | ... | 118 | 50 | ... | ... | 50 | 168 |
| | TOTAL | 16 | 1 | 15 | ... | ... | 42,155 | 681 | ... | ... | 681 | 438 | 3 | 17 | 458 | 1,139 |
| Bengal | Bankura, Raniganj | 3 | ... | 3 | 2 | 2 | 4,985 | 32 | 24 | ... | 56 | 32 | 23 | ... | 55 | 111 |
| | Birbhum " | 8 | 4 | 4 | 1 | 1 | 4,352 | 101 | 18 | ... | 119 | 138 | 117 | 13 | 268 | 387 |
| | Burdwan " | 257 | 212 | 45 | 177 | 280 | 4,250,305 | 15,825 | 9,377 | 138 | 25,340 | 12,569 | 7,046 | 300 | 19,975 | 45,315 |
| | TOTAL | 268 | 216 | 52 | 180 | 283 | 4,259,642 | 15,958 | 9,419 | 138 | 25,515 | 12,739 | 7,186 | 373 | 20,298 | 45,613 |

* Not worked in 1921.

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

Statement No. 7.

ledge of plans, surveying and levelling, and of the various instruments used in mining. Questions may also be asked upon geology, sanitation, hydraulics, explosives, safety lamps and similar subjects. Candidates may also be required to show how to arrange the ventilation and haulage of a mine on a given plan.

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

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

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

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

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

| Subject. | FIRST CLASS. | | | SECOND CLASS. | | |
|--|--------------|-------------------|------------|---------------|-------------------|------------|
| | Papers. | <i>Viva voce.</i> | Total. | Papers | <i>Viva voce.</i> | Total. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (a) Arithmetic and handwriting | 50 | ... | 50 | 50 | ... | 50 |
| (b) Mining | 160 | 60 | 220 | 140 | 80 | 220 |
| (c) Mechanics | 110 | 40 | 150 | 100 | 50 | 150 |
| (d) Indian Mines Act | 60 | 20 | 80 | 60 | 20 | 80 |
| TOTAL | 380 | 120 | 500 | 340 | 160 | 500 |

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

(10) A candidate for a first class certificate, who does not reach the necessary standard, may nevertheless, at the discretion of the local examiners, be recommended to the Board of Examiners for a second class certificate, if, in their opinion, he has done sufficiently well to deserve it.

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

(12) The questions which the local examiners intend to put in the examination papers shall be submitted in draft to the Board of Examiners, for approval, at least six weeks before the date of the examination. Answers to questions on arithmetic and those involving calculations and all plottings and levellings must be submitted to the Board of Examiners along with the question papers.

(13) At least one examination for first class candidates and at least one examination for second class candidates shall be held annually in one of the Bengal or Bihar and Orissa coal-fields; and in other parts of India examinations will be held whenever, in the opinion of the Board of Examiners, the number of candidates in a coal-mining centre justifies the holding of an examination.

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

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

Statement No. 7.

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

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

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

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

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

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

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

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

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

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

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

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

These Regulations cancel all previous regulations and shall take effect from the 30th September, 1921.

R. R. SIMPSON,

*Chief Inspector of Mines in India and ex-officio
President of the Board of Examiners.*

DHANBAD;

The 15th February, 1921.

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

Statement No. 8.

DEVELOPMENT DEPARTMENT.

NOTIFICATION.

Dated Rangoon, the 14th April 1921.

No. 19.—In exercise of the power conferred by section 29 of the Indian Mines Act, 1901, as amended by the Decentralization Act, 1914, the Local Government is pleased to exempt the mines specified in the second and third columns of the table below from the operation of the said Act, subject to the proviso, if any, contained in the fourth column:—

| Serial No. | Nature of mine. | Locality. | Proviso. |
|------------|---|----------------------|---|
| (1) | (2) | (3) | (4) |
| 1 | Ruby workings (native mines). | Ruby Mines District. | |
| 2 | Twinza oil wells ... | Magwe Division. | |
| 3 | Steatite mines ... | Minbu District. | |
| 4 | All sand-stone, stone or laterite quarries. | Whole of Burma ... | Provided that no substantial part of such quarries extends beneath the superjacent ground, and also provided that the exemption, hereby conferred, shall cease to apply to any quarry, the further exemption of which the Local Government may, by general or special order, declare to be inexpedient. |

By order,

W. BOOTH-GRAVELY,

Revenue Secretary to the Government of Burma.

Statement No. 9.

DEVELOPMENT DEPARTMENT.

NOTIFICATION.

Dated Rangoon, the 11th May 1921.

No. 21 (CORRIGENDUM).—In this department Notification No. 19, dated the 14th April 1921, for the words "Ruby Mines District" in column 3 of the table subjoined to the notification substitute "Katha District."

By order,

W. BOOTH-GRAVELY,

Revenue Secretary to the Government of Burma.

APPENDIX IV—*concl'd.*MISCELLANEOUS—*concl'd.*

Statement No. 10.

LAND ACQUISITION (MINES) ACT, 1885.

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

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