

"In some cases the gate may be of lattice, collapsible, or similar construction, sliding sideways or perpendicularly. The operations of opening and closing the gates are generally effected by the 'banksman' or 'hooker-on' when the cage is at rest at the bottom of the shaft or on the catches.

"Normally, the men using the cages fitted with gates according to the invention will not attempt to leave same before being released. But, of course, the gates may be readily opened from the inside if desired.

"Out of use, the gates are slung under the roof of the cage.

"The advantages claimed for the gate are as follows :—

"1. Will prevent persons falling out through fainting.

"2. Will prevent persons falling out through overcrowding or crushing.

"3. Will prevent persons being thrown out through jerking or being tilted in catching the sides of the shaft or other obstruction.

"4. Will prevent persons catching their clothing, shoulders, or knees when passing by the wooden frame-work at the top and bottom of the shaft or at mouthings.

"5. Will prevent any attempt from entering until the cage is at rest at the bottom of the shaft or on the catches.

"6. Will prevent persons stepping out until the cage is at rest at the bottom, or on the catches, or until at the proper landing-places.

"7. Will prevent any sudden attempt to leave or enter the cage after the signal has been given.

"8. Will lessen the danger of persons getting out at the wrong end of the cage at a mouthing in a wide shaft.

"9. In many cases, where the cages are small, men cramped together, and the winding-speed terrific, a protective gate is essential.

"10. All concerned are under better control of the 'banksman' and 'hooker-on.'

"11. The cost of the patent gate is slight.

"12. Avoids serious loss of life and compensation."

MINERALS OTHER THAN GOLD.

SCHEELITE.

This mineral, which is found associated to some extent with quartz in Otago and to a lesser extent in Marlborough, has of late come in for an increased share of attention. So far, Messrs. Donaldson Bros., of Macrae's, Otago, have been the only people to regularly make a marketable product, but there are strong evidences that in the near future other parties will also become producers.

When at Glenorchy towards the end of the year, I obtained three samples of scheelite in the locality : No. 1 was from a reef at Bucklerburn, Nos. 2 and 3 being obtained from alluvial deposits of quartz, &c., at Precipice Creek and the Twelve-mile, Oxburn, respectively. These were submitted to Dr. Maclaurin, Government Analyst, who gave the following analyses :—

	Tungsten.	Tungstic Acid.	Calcium-tungstate (Scheelite).
No. 1.	30.52, equal to	38.44, equal to	47.66 per cent.
No. 2.	48.04, equal to	60.50, equal to	75.02 per cent.
No. 3.	42.24, equal to	53.30, equal to	65.97 per cent.

The old scheelite-mine at Glenorchy is being reopened by Messrs. Reid and Lee, and the battery will be equipped with modern concentrating-plant for the separation of scheelite from the quartz sands.

PLATINUM.

This is obtained in small quantities at Round Hill, near Riverton. It also occurs in the alluvial wash at Takaka, Nelson, but has not hitherto been systematically saved.

HÆMATITE PAINT.

The manufacture of hæmatite paint is still carried on at Parapara (Nelson) and Thames, but there are no fresh developments to note. At Mataura (Southland) a quantity of crude hæmatite is obtained locally at a lignite-mine and used for dyeing-purposes at the Mataura Paper-mills.

ROCK PHOSPHATE.

A deposit of this mineral is reported to exist in connection with the limestones in the vicinity of the Waiau River, Southland. In the neighbourhood of Milton (Otago) it is being quarried and calcined, then railed to the chemical works at Burnside for further treatment. Its value as a fertiliser is becoming better known and appreciated.

CINNABAR.

There is nothing fresh to report as regards the development of the mine near Waitahuna (Otago). Further capital is required before this can be effected. Specimens of the mineral are occasionally found in other parts of the colony.