

ate intention of belittling the mining, and especially the dredging enterprises that are being energetically undertaken in the Canadian Yukon. Mr. Rickard's article brings out the truth and justice of our contention that the mining engineers at work in the far north are proving that with a reasonable amount of time to work in, and abundance of water, the warmth of summer will extract the frost from the ground, and consequently that the frozen gold-bearing gravel can be dredged at a splendid profit.

As is explained in a letter from a correspondent in this issue, the name of an important producing gold mine was inadvertently omitted from the list of Nova Scotia mines published by us on September 1st. Oldham has been one of the richest gold producers of the province. The omission was, therefore, a serious one.

The article on Mining in Western Australia should be read by Canadians. It shows what effective administration and sane methods can do. The records of divi-

dends paid is astonishing. Canada should take the lesson to heart. We need less promoting and far more clean development.

With a few notes on the reception of the Canadian Mining Institute at Cobalt, we reproduce the scheme of Mr. A. A. Cole's mineral collection. Mr. Cole should have the gratitude of the community for his enterprise and energy. If these collections could be duplicated and placed within the reach of prospectors and others, we are sure that a large demand would be created.

The annual report of the Consolidated Mining and Smelting Company of Canada, excerpts from which appear on another page, announces that the gross value of metals produced at the company's smelting works up to date is over \$31,000,000. During the year ending June 30, 1908, the gross value of metals produced was \$5,428,501, as compared to \$3,786,196, the production for 1907, being an increase of over 43 per cent.

## THE USE OF OXYGEN BREATHING APPARATUS AT THE SYDNEY MINES FIRE.

By F. W. Gray.

A fire which occurred at Sydney No. 1 mine, of the Nova Scotia Steel & Coal Co. on the 9th September, has served to demonstrate the usefulness of oxygen breathing apparatus for underground fire fighting, and to bear out the statements put forward in a note by the writer, which appeared in the Canadian Mining Journal of 1st May last regarding lessons to be learnt from the fire at Hamstead, Eng.

The fire at Sydney mines originated some time towards the evening of the 9th inst. from a blown out shot. The seat of the fire was a partly driven room, set in some thirty feet from the back deep, at a point near to the barrier and distant about 2 1-4 miles from the shaft. The water supply was inadequate and subject to interruptions, being carried for the last 500 feet in ordinary firemen's hose, which burst under the great head of water. Owing to this the fire gained on the workmen, and involved the back deep and the room opposite to the one where it started. The fumes from the fire prevented a sufficiently close approach to make the hose stream effective in extinguishing the flames, and two men were rendered insensible by the "fire-stink." It was decided to ask the assistance of the Draeger equipment of the Dominion Coal Co. to enable the fire to be fought at closer range. A telephone message was received at Glace Bay about 8 p.m. on the 10th, and by 11 p.m. a party of twenty-four was got together, consisting of District Superintendent N. McKenzie; the instructor at the Rescue Station James McMahon, and twenty-two men from collieries Nos. 2, 9, 1, 3 and 5. Reaching Sydney at 12 p.m. they were taken by a special tugboat and arrived at Sydney No. 1 about

1 a.m. The face was reached about 3 a.m. and by 5 a.m. the fire was attacked. It was found possible to get within 50 feet of the fire in good ventilation, and a base was established at this point. The men attacked the fire in relays of three at a time, while others were detailed to brattice and timber as required. The whole of the operations were directed by Mr. McKenzie. The chief obstacle to the fighting of the fire was a heavy fall at the entrance to the second room into which the fire had spread from its original starting point on the other side of the back deep. It was found necessary to surmount this fall to get the hose on to the fire, and the heat was intense. The men could not endure it for longer than ten minutes, after which they had to retreat. The instructor would then relieve the retiring men of their apparatus and fit out a fresh relay, and so on. After working in this way from 5 a.m. till about 3 p.m. the fire was driven back and confined to the small room where it had originated. When this was done the Glace Bay men withdrew, and a dam was constructed by the workmen of the Nova Scotia Co. across the mouth of this room, and it was slowly flooded through a pipe left in the dam.

The work performed by the Glace Bay men was done under the most arduous conditions. The stream of water was so feeble owing to the breaks that it was necessary to get quite close to the flames to effect any good, and the interruptions to the water supply sometimes allowed the flames to recover the ground they had lost through the previous exertions of the workers. The heat was very great, and the steam scalded the men, until they obtained the protection of oilskins.