PROGRESS OF MINING IN BRITISH COLUM-BIA IN 1903.

In the 1903 Annual Report of the Minister of Mines for British Columbia the Provincial Mine alogist, Mr. Wm. Fleet Robertson, makes comment on the Progress of Mining in the Province during the period under notice. In the course of his review he observes:

"The statistics of the mineral production of the year 1903, when compared with those of the previous year, do not show that increase of output which had been hoped for, and which there was reason to expect.

"The gross value of the mineral products of the Province for the year 1903 was \$17,495.954, an increase over the preceding year of \$9,404; not a very great sum, but still an increase, and including and overcoming the decrease occurring in both the placer gold and coal mining branches of the industry, for which in both cases there are special and, fortunately, only temporary causes.

"These statistics are only a record of the amount of mineral actually produced and marketed; as such they are true, but it is felt they are not quite a just measure of the progress actually made in the industry, as they take no cognizance of the improved methods of mining and treatment which have been or are being adopted, and which have so important a bearing on the chief end and object of mining, viz., the earning of a profit.

"It is generally conceded that mining in the Province is gradually assuming a better and more secure position as a business than it formerly held, and is on a more stable basis than it was a year ago.

"This has been secured by the general recognition of the necessity for, and the adoption by many companies of, methods more conducive to success, while others have passed through that initial and expensive experimental stage which seems inherent to mining in a new district.

"This viewing of mining from a more strictly business standpoint is gradually tending to the elimination of enterprises which are not based upon substantial merit, and which, therefore, can never succeed, but, by their very existence, cast a shadow of doubt upon legitimate enterprises.

"The labour conditions, too, formerly unsettled, appear now to be more stable, experience having apparently taught both employer and employee that strikes and lockouts are expensive luxuries not to be hastily indulged in, entailing not only a present but subsement loss to both parties.

"The following is a brief review of the separate branches of the industry:

"With regard to coal mining, the collieries of the Province, taken collectively, did not produce as much coal in 1903 as in the previous year. The Crow's Nest collieries show a substantial increase in the production of both coal and coke, while the Coast collieries show a more than equivalent decrease. The output in both these districts was greatly diminished by strikes which occurred during the earlier part of the

year, causing a loss of time which could not be made up, while in the Coast district a change of ownership of one of the large properties led to alteration of plans and plant, which temporarily interfered with, although it will eventually increase, the output. There is also no doubt but that the Coast collieries are feeling the competition in California of the fuel oil found there, since in that market a large percentage of the Vancouver Island coal has of late years been sold.

"Placer gold mining has, on the whole, about held its own during the past year; there has been a decrease, but only a slight one. The northern districts have made an increased output, but the central districts show a diminished production. Of these latter districts, Cariboo requires a heavy snow and rainfall to insure success, while the valley of the Lower Fraser requires low water in the rivers to expose the bars. Unfortunately, during the past season these conditions were exactly reversed and the output of gold accordingly diminished.

The tonnage of ore mined by the lode mines of the Province in 1903 was 7,286,176 tons, an increase over the preceding year of 287,177 tons, or about 29 per cent. In certain districts, more particularly those producing lead ores, there has been a decrease, but the Boundary, Rossland and Coast districts all show large increases in tonnage of ore mined. In the Boundary district the continually improving methods of mining and smelting have rendered further low grade properties workable. These new methods are gradually widening the margin of profit in the handling of the large but notoriously low-grade ore bodies of that locality.

"In the Rossland district the ore mined amounted to 360,786 tons, an increase over the preceding year of 31,252 tons, or about 91/2 per cent. The metallic contents of the output have scarcely kept pace with the increased tonnage, as the average grade of the ore mined in the camp was lower than ever before. This gradually decreasing assay value of the ore is attributable to two causes, both of which are unquestionably true, although it is difficult to know exactly the relative importance to assign to either. One of these causes is the undoubted fact that cheaper methods of mining and of treatment charges which have followed year by year have rendered possible and advisable the handling of a lower-grade ore than formerly, admitting of the utilization of much material as ore which previously was waste. On the other hand, it is claimed that as the ore is followed to a depth, it is actually of a lower grade, or rather that there is a smaller percentage of high-grade ore in the ore body. On this point it might not be inappropriate to quote from the last annual report of the Manager of the Centre Star and War Eagle mines (two of the largest mines in the camp), who had ample opportunity to observe the facts. He says:

"Developments up to date show that the Centre Star mine' (he says the same of the War Eagle) 'has experienced the same general change in the character of its ore deposits which has occurred in all other productive mines in the Rossland district, and which is