

duced last year this would represent a money valuation of nearly \$5,000,000. Unfortunately this is vitiated by the fact that the ore of the Cariboo-Camp McKinney, which is high grade in gold, and ore of the B. C. mine which is high grade in copper, are included. These formed a high enough percentage of the 1900 output to affect the total in a much greater degree than they can that of the present year. But it will not be found very wide of the mark to place the value produced from this district at about \$3,000,000, of which \$2,000,000 are represented by copper, an amount considerably in excess of the total copper production of last year. If allowance is made for a certain increase observable in the production of the Coast mines, and the resumption of the Hall mines, the output of copper from the Province this year may be safely estimated as obtaining a value of \$3,000,000, as compared with \$1,615,289 last year. This year, it is likely, will be found to be rather within, than beyond the mark.

With the gold output of the Province it is impossible to deal at the present time in any satisfactory way. It is derived from the many sources, and subject to too many varying conditions, to make any estimate reliable which is not based on actual returns. There will unquestionably be a decline in the output of placer gold, due however, to temporary causes. On the other hand there will be a considerable increase in the output of lode gold. With the exception of a few unimportant producing mines in the Nelson district, which have been in difficulties during the year, all the gold mines in the Province have shown progress. The total gold output of the Province this year should go to \$5,000,000, but this is, for the reasons already given, a very crude guess. On the whole, it may be safely hazarded that the gain in gold and copper will more than offset the loss in silver and lead, and that the output of these four metals will be in the neighbourhood of \$12,000,000 as compared with \$11,500,000 in round numbers last year.

It is very satisfactory to reflect that in a year when such untoward conditions have affected the industry of silver-lead mining, the Province's most important industry, other resources have sufficed to make good the deficit. It is a pity, of course, that the promised great increase in the aggregate output has not been materialised. But it is as well to enforce the fact that this has been due to causes external altogether to the Province.

He would indeed be a bold man who would base an argument on the decline of mining in British Columbia on the results achieved this year. In fact we cling to the idea that if anything we have underestimated the increase in the gold and copper and overestimated the decrease in silver and lead. This decrease also, it should be remembered, is only marked in money valuation. In tonnage, both of ore and metal, the combined mines of the Province show a satisfactory rate of progress, while certainly, more dividends have been paid, and more properties reinvested, during 1901 than during any previous year. The industry of mining is in a thoroughly sound and healthy condition, and if to the

productive activity manifested, are conjoined progressive intelligence on the part of the government, and mutual forbearance on the part of both employers and employed, a great increase in the amount of capital invested and consequent stimulus to production may be expected.

ROSSLAND IN 1901.

By F. C. MOFFATT.

MINING operations in the Rossland camps during the year 1901, have been sadly restricted by the financial muddle, disturbing factors of labour and company misadventures. It was estimated at the commencement of the year that a production of 400,000 tons might reasonably be expected for the 12-monthly period, making due allowance for accidents. Instead, however, the 1901 output may be more or less accurately placed at between 290,000 and 295,000 tons.

The aggregate is approximately made up in detail as follows:

	Tons.
Le Roi.....	162,000
Le Roi No. 2.....	40,000
Centre Star.....	54,000
War Eagle.....	20,000
Rossland Great Western.....	11,000
Iron Mask.....	4,500
Velvet.....	550
I. X. L.....	250
Spitzee.....	200
Evening Star.....	75
Grant.....	50
Portland.....	25
Homestake.....	25
Monte Cristo.....	25
Total.....	295,700

From the foregoing it will be seen that the district includes 14 productive properties, but only seven may be regarded as importantly so. These are the Le Roi, Le Roi No. 2, Centre Star, War Eagle, Rossland Great Western, Iron Mask and I. X. L.

The seven mines mentioned sent out approximately about 294,750 tons of ore, the remaining 950 tons of the total given being made up by occasional consignments contributed by the smaller properties. I have included the I. X. L. in the class of larger producing mines because, while the tonnage is small the ore is all picked, and consequently the returns from this property assist very materially in increasing the average value of aggregate output from the district. Much of the ore sent out from the smaller mines was either sold for fluxing purposes or represented trial shipments.

Of the properties outside of those mentioned in the shipping list upon which any considerable work has been in progress during the year may be mentioned the Kootenay mines—comprising the old Columbia-Kootenay properties—a B. A. C. flotation; the White Bear, Grant, New St. Elmo, California, Green Mountain, Big Four and Abe Lincoln.

Operations were practically suspended during the year on the Iron Colt, Iron Horse, Sunset No. 2, O. K., Monte Cristo, Virginia, Jumbo, Big Four, Gertrude, Novelty and some other smaller properties, all of which are in a more or less advanced stage of development.

In regard to the Le Roi, Mr. Bernard Macdonald made a voluminous report last August, and according to the figures presented by him, the mine had 1,489,000 tons of ore in sight at June 30, 1901, and the total net profit for the year ending at that date was \$1,285,388. Mr. R. J. Frecheville, a mining engineer and also a director of the company, who in August last came to