BRITISH COLUMBIA.

MR. CARLYLE'S BULLETIN ON THE THREE MINING DISTRICTS.—A BRIGHT OUTLOOK FOR THE PROVINCE.

ANOTHER bulletin, the third since his appointment, has just been issued by Mr. A. W. Carlyle, British Columbia mineralogist. report is upon the Slocan, Nelson and Ainsworth mining districts, and the thorough and practical information it contains makes it most valuable not only to the mining engineer, but to the investor and prospector. Mr. Carlyle has that rare faculty of presenting scientific facts in a form that the ordinary individual can grasp and comprehend, and for that reason his reports are bound to be of immense benefit to the mining industry of the Province. In the introductory remarks of his just-issued report, Mr. Carlyle states that "every endeavor was made to visit as many as possible of the leading properties within the time available, but even then some important mines were not seen. In every direction new claims were being opened up, but, as seldom satisfactory information can be given concerning mere prospects, examination was mostly confined to those claims on which more or less work had been done, and on which underground conditions could be studied."

ON RECENT INCEPTION.

It is pointed out that the mining industry of British Columbia, outside of the placer gold and coal mining, is of very recent inception, for until eight or nine years ago, the great extent of mountainous country south of the C.P.R. was a wilderness, known to but few, and it was not till 1890.91 that the silver veins on the east of Kootenay Lake and Toad Mountain—discovered years before by men in the Hudson Bay Company's employ—began to attract mining men from abroad. In spite of the collapse in silver values, nearly \$650,000 worth of silver was sent out of Kootenay in 1894, and in 1895 the production of the different kinds of silver ore increased to over \$1,000,000, the production doubling in 1896.

A HOPEFUL CONDITION.

"Meanwhile," says the report, "the gold-bearing pyrrhotite deposits on Trail Creek were being exploited under many vicissitudes, until the shipment of pay ore, in 1894, to the value of \$75. of \$75,000, and of nearly ten times this amount in 1895, from the large ore bodies of the Le Roi and War Eagle, commanded widespread interest by reason of its being gold ore and very profitable, and in 1896 has been seen a great influence. influx of capital's representatives and mining men, who are not only securing gold properties but are investing in silver as well. The production of the Kootenay mines, when compared with that of many of the mining centres in other countries, will not appear so very large to a casual reader, but when all the conditions are understood, that an entirely new country of a large territorial extent is being rapidly opened up under difficulties, that the supply of needed capital, until recently, has been meagre, and that in reality not a single mine has had time to do sufficient development work to put it on a really proper basis for extraction of ore and further exploratory work, this production will then be seen to indicate a most flourishing and hopeful condition of affairs. As to the future, there is now no doubt but that the number of

paying mines and mine output will steadily increase in the districts to be described, but not with that extravagant rate of increase predicted by some—at least not until those conditions exist that will permit the extraction of a much greater tonnage of ore. Such conditions are being supplied, and judging from the shipments already made in the new year, which exceed those of any previous year for the corresponding time, the output from Kootenay for 1897 will show a very substantial increase.

THE OUTLOOK BRIGHT

"The outlook for the coming year is especially bright, as many properties are beginning the new year with ore in sight, new mines have been added to the list, very promising prospects are being opened up, and during 1897 nearly every claim from which ore has been shipped in the past will be on the list of shippers. promises to be a steady increase in the amount of the ore extracted and sold, and in the amount of development done, but it is both unwise and hurtful to predict very large and sudden advances in the mineral output, as it must be remembered that a greatly increased output requires also a greatly increased amount of underground work, unless large bodies of very high-grade ore are uncovered. Extravagant prophecies may travel far, and if the actual results do not approach the amount thus foretold, harm unjustly a mine or district in which the progress has been most favorable and satisfactory, quite equal to the expectations of those best qualified to know.

THE VALUABLE SLOCAN.

"Slocan, according to the number of its shipping mines and the amount and value of the ores sold, now ranks as the most productive mining district in the Province, and in point of importance is not surpassed by any other. In an area of 15 by 25 miles there have been discovered many veins of high-grade silver-lead ore, which are being developed with great vigor and success, and among the mining men is every feeling of confidence and hopefulness. This winter nearly 50 of those properties are shipping high-grade ore that yields very profitable returns, and a large number of other claims are being opened up. So far but comparatively little imported capital has been expended here, as in the case of every mine now established, sufficient money has been realized from ore extracted during development to pay for more extensive workings, new buildings, mills, trails, roads, and also dividends, but more or less capital will be required to properly open up many other claims on which the veins exist, but are not so easily accessible as those first discovered. But as most of these veins are found along the steep mountain sides and can be worked by tunnels, and the cost of mining is low, requiring little or no machinery, capital will be necessary mostly when tramways and concentrators are to be built, or in some cases for hoisting plants and pumps when tunnel sites may not be available. The output of the Slocan during 1896 was 18 215 tons of ore, yielding 2,141,088 ounces of silver and 19,-210,666 lbs of lead, or an average of 117.4 oz. of silver per ton, and 52.7 per cent. lead, which would leave a net profit of about \$75 per ton, while many carloads were shipped that yielded from 300 to 400 ounces of silver per ton. The Slocan Star, which has the largest chute of

high-grade ore yet found in the Slocan, sold 11,529 tons of ore and concentrates during the last three years, which returned 912,600 ounces of silver, and 13,482,000 lbs. of lead, and of these amounts 7,000 tons yielded 600,000 ounces of silver and 9,000,000 lbs. of lead during 1896."

THE NELSON DISTRICT.

In the Nelson district the Silver King silvercopper mine of the Hall Mines Co., Ltd., the
Poorman and some small placer workings have
yielded all the production credited to the district, but other mines will be added ere long to
the list. In the Salmon River country south
of Nelson many claims have been staked off on
gold and silver leads. In the Ainsworth district the output for 1896 was much lowered by
the cessation, early in the year, of mining on
the Blue Bell, in which it is reported the ore
has become rather low grade for present conditions, but in several of the other mines west
of Ainsworth, considerable progress has been
made.

Comparative statements of the production for 1895 and 1896 of the three mining divisions dealt with in the report are given, the tonnage of ore being the net weight, that is with the moisture removed. The table represents the amount and value of the ore actually paid for as per smelter returns:

	SLOCAN. 1895.		1896.	
Gold, oz Silver, oz 1,137,040 Lead, lb 9,751,464	\$ 120 742,487	Amount. 152 2,141,088 9,210,666	Value. 3,040 1,434,529 572,479	
Total	\$1,057,677		2,010,048	
	NELSON. 1895.		1896.	
Gold, oz 1,275 Silver, oz 49,750 Copper lb 112,420	\$25,500 32,487	Amount. 511 631,960 2,237,921	Value. \$ 10,220 423,413 111,896	
Total	\$63,608		\$545,529	
AI	NSWORTH			
	1895.		1896.	
Silver, oz 263,03 Lead, lbs 6,724,00		Amount 187,279 2,151,000	Value. \$125,489 64,100	
Total	\$388,944		\$ 189,589	
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MINES SHIPPING.

This gives a total value for the three districts of \$2,745,166 for 1896, as against \$1,500,229 for the preceding year. The number of mines shipping in the three districts in 1896 was: Slocan 42, Nelson 4, and Ainsworth 9, the number of miners employed totalling 1,550. After alluding to the fact that the great material advantages of the fine waterways have singularly favored West Kootenay for transportation, Mr. Carlyle says:

"The Provincial Government has followed a plan of assisting, as far as possibile, the building of roads and trails to the various new camps, and, though it has been impossible to accede to all of the many requests for aid where so many new parts are being opened up by fresh discoveries in many different directions, still the assistance given has been valuable, and has aided materially in the opening up of the country. As the Government agents, to whose judgment the determination and carrying on of this work is entrusted, are already fully employed by their other necessary duties, it would be a good policy in the matter of economy and