

class than any other section. The Slocan Division was first in silver production by a wide margin which the Fort Steel Division was in the van in respect of lead and zinc output.

Reference was made to the Noble Five Mine near Sandon, where the big raise connecting the lower workings with the upper is completed and a 100 Ton Concentrator is being constructed by the General Engineering Company of Salt Lake City. The flow sheet, it was explained, embodies a system of jigs, Whilfley tables, and Callow Flotation Cells. The Surprise Mining Company, the Queen Bess Mine, the Silversmith Mines, and the Rambler-Cariboo Mine were mentioned by Mr. Langley as being either producers or prospective producers in the Sandon District. In connection with the latter properties the 150 Ton Concentrator, being constructed at Alamo, B.C., for Clarence Cunningham, was described. In a recent interview it is stated that Mr. Cunningham expressed his readiness to treat custom ores and it was thought that this would be a help to the small operators of the district.

In conclusion Mr. Langley said:

"In concentrating the silver-lead-zinc ores from the Slocan and other parts of the District, a fairly high percentage of the silver values is contained in the zinc concentrates, and a solution of the problem of separating the silver from the zinc would be of immense value to the mines of the district.

"Besides the ores already dealt with there are known deposits of molybdenite, chromite, hematite, bismuth, magnetite, and manganese, but none of these is being mined at present."

The Mineralization of Northern Manitoba, by R. C. Wallace, The Pas, Manitoba.

This paper, which was read by proxy, stated that the areas of which something had been learned of late extended northward about 200 miles and was of varying width, averaging about 20 miles. It was some 186 miles distant from The Pas and could be divided into two zones, the Western and the Eastern. The former had been found to be rich in high grade copper and in the latter had been discovered gold. Of the copper properties developed the chief were the Mandy and the Flin Flon, which were copper sulphide ore bodies. They had been discovered in the Fall of 1915 near the boundary of the Provinces of Saskatchewan and Manitoba. The Mandy had been taken over by the Tonapah Mining Company and a subsidiary operating company formed known as the Mandy Mining Company. Ore had been taken from a very high grade lens of Chalcopryite and hauled 40 miles by wagon, 130 miles by barge to The Pas, and freighted 1,200 miles by railway to Trail Smelter. Altogether 25,000 tons had been produced, of which half had reached the Smelter, which averaged in its copper content between seventeen and eighteen per cent., with some values in gold and silver. Despite the high transportation expenses a profit had been shown on the ore shipped. On the Flin Flon, during the year 1916-17- and 18, development had proceeded by means of the diamond drill, as a result of which an ore body had been blocked out to a depth of 900 feet. The work done had demonstrated that it was one of the large low-grade copper-sulphide bodies of the Dominion, there being sixteen million tons blocked out to the depth stated averaging eight dollars per ton at present prices. The ore also contained gold and silver values. A smelter would have to be built and a water power developed

which was 35 miles distant from the deposit. There was a railway for a distance of 85 miles from The Pas and the Canadian National Ry. will guarantee the provision of transportation facilities providing funds were available to install the 2,000 ton smelter necessary and to undertake to operate it to capacity. In this connection the writer stated that there was a fuel problem because of the high price of coke, but powdered coal might be utilized. He thought that electric smelting might be tried.

Referring to the gold discoveries of the eastern section of the area under discussion the first indications were found on Herb and Wekusko Lakes. Since then prospectors had been active. The Rex Property had been recorded by the Makeever Bros. on which a 40 Ton Lane Mill had been installed in 1918. Between May, 1918, and early in the following December, when the Mill closed because of labor troubles, approximately \$27,000 had been obtained in values from the plates. Work thus far had been confined to the first level and the vein was between 4 and 4½ feet in width.

Closing Resolutions.

The Convention closed with the discussion and passage of a number of resolutions.

Returned Soldiers' Prospecting Parties.

The first was that proposed by the Canadian Mining Institute, embodying a scheme whereby returned soldiers, with the necessary qualifications, may be given an opportunity to prospect for minerals in Canada. The idea is that capable returned men, wanting this kind of work, shall be divided into small parties, each of which shall be in charge of an engineer. These parties, it is explained, would be re-grouped and the latter group placed under the supervision of a divisional engineer. The whole, in turn, would be under a Chief Engineer. Each group would be placed in specified parts of the mineralized zones of Canada, and each man would be paid a small salary, and, of course, maintained. The Dominion Government is to be asked to provide \$200,000 to permit 200 returned men to be sent into the field in the manner outlined. It is understood that discoveries by these prospectors would be developed when thought of merit by experts, and their value, when realized, divided in proportions to be decided upon between the discoverers and the Government, the latter having this means of recouping itself in a measure. The proposal was endorsed.

Government Asked to Purchase and Distribute Powder.

A resolution was passed asking the Provincial Government to arrange for the purchase of powder in large quantities for use in each mineral district, and for its distribution through a Government Agency in small quantities and at minimum charges to prospectors and operators.

Resolutions were also passed asking the Provincial Government to appoint more District Mining Engineers where needed, and petitioning the Dominion Government to intervene for the settlement of the coal miners' strike in the Crows Nest Pass District, inasmuch as the shortage of coke was adversely affecting the metaliferous industry of the Province.

The British Columbia and the Dominion Governments were also urged to provide subsidies to encourage the establishment of a blast furnace of 300-ton daily capacity at some point in the Province on the Pacific Coast.