

MACHINERY NOTES.

Mr. F. Fernan, an English metallurgist and consulting engineer now visiting British Columbia on behalf of an English Company, recently expressed his private opinion that in this country we are as far advanced in copper-gold smelting as we are behind in our knowledge of modern methods of handling silver-lead and zinc ores. As a result of a report made by Mr. Fernan last August, it is stated meanwhile that it has been definitely decided to erect at once in the Slocan both a zinc enriching mill and a zinc reduction plant. The erection of a lead smelter is under consideration. By the enriching plant it is proposed to take the ordinary zinc concentrates produced by the Slocan mills and enrich them by magnetic process to a point where they will stand exportation, that is 55 per cent. and upwards. Both this plant and the reduction works will have capacities to start with of 25 tons daily and will be built on the unit system.

The Mount Baker-Yale Mining Company has just installed a ten-stamp mill on the property on Siwash Creek, near Yale, and will shortly add another battery of ten stamps. The ore of which there is a large body, is said to average about \$4 to the ton.

In an interview the managing director of the Arlington mine, in the Slocan City Division, stated that the proposed 50-ton mill for the mine would be in operation before the close of the present year. This mill is to utilize the Parks process. The ore is first crushed in a 20-stamp mill and is carried by automatic distributors over six Overstrom tables. The slimes are put through a Klein separator. From laboratory tests it is considered that 90 per cent. of the silver values in the Arlington dump can be saved by this method at a cost of \$3.50 per ton, leaving a profit of \$7 per ton on 40,000 tons.

Imports of mining machinery into Canada during 1903 were very large, the total value thereof being \$1,281,185. Most of the machinery imported was supplied by manufacturers in the United States, the value of the imports from this source being \$1,206,465, while from Great Britain machinery to the value of \$61,425 was imported. Great Britain, however, supplied us last year with nearly double the quantity of wire rope as that furnished by the United States.

A matter of recent important occurrence is the commencement of lead refining operations at Trail on a commercial scale. It is expected that the refinery, which has a capacity of twenty tons a day, will be henceforward in steady operation, the intention being, it is announced, to produce a sufficient quantity of pig lead to meet the requirement of the Canadian market. As is well known, refining at these works is done by an electrolytic method, which has experimentally given excellent results. After the refinery has been in operation for a time sufficient material will have been accumulated to justify the opening of the slimes plant. This is a secondary process to handle the residue of the lead refinery after the pure lead has been extracted. The slimes carry gold and silver in conjunction with arsenic, antimony and other impurities collected in the refining process. Within the slimes plant the pure gold is taken out to be marketed at the Seattle or San Francisco mints, silver for export to the Orient, copper sulphate, which finds a ready market for pickling grain in the Northwest Territories, and either metallic antimony or antimonial lead, which is used largely in Canada in the manufacture of babbitts and other alloys.

A concentration plant with an initial daily capacity of 150 tons will shortly be installed at the Nickel Plate mine, at Hedley.

The aerial tramway, 13,000 feet in length, connecting the Hunter V. mine with the railway at Ymir having been completed, shipments from this property have been commenced.

The 350-horsepower motor to operate the new White Bear electrical air compressor has been shipped from the eastern manufactory where it has been under construction for several months. As soon as the motor is installed the compressor will be put into use. At present the mine is utilizing the old steam-driven compressor.

FEBRUARY DIVIDENDS.

Le Roi No. 2 (Rossland).—One shilling per share.
Sunset (Slocan).—The tenth dividend of \$6,000.
Cariboo (McKinney).—At the rate of 4 per cent.

PERSONALS.

Mr. B. Fallows, M.E., of Rossland, has been appointed engineer for the Monarch Gold and Copper mines property on Hall Creek.

Mr. Leslie Hill, C.E., of Nelson, consulting engineer and manager for the Hastings (British Columbia) Exploration Syndicate, Ltd., left Nelson on the 16th ulto. on a business trip to London, England.

Mr. A. B. W. Hodges, superintendent of the Granby Company's smelter at Grand Forks, went to Montreal recently to confer with the directors of the company on matters connected with their increasing smelter business.

Mr. Paul Johnson, E.M., was down from Hadley, S. E. Alaska, last month. Before returning he paid a visit to the B. C. Copper Company's smelter, Greenwood, where extensive additions and improvements to plant are being made.

Mr. Donald G. Forbes, late general manager of the Silver Cup Mines, Ltd., and the Great Western Mines, Ltd., with provincial head offices at Ferguson, in the Lardeau district, left for England last week after a short visit to Victoria.

Mr. S. Hirsch, representing Mr. L. Vogelstein of New York, agent in America for Aron Hirsch & Sohn, of Halberstadt, Germany, lately visited the Payne Mine, near Sandon, Slocan, in connection with the making of a contract for the zinc output of the Payne.

Mr. C. A. Stoess, C.E., P.L.S., at one time a resident of New Westminster, but for the last four or five years practising his profession in the Grand Forks district, has returned to the Coast, making Vancouver his headquarters.

Mr. R. I. Blomert, for the last three years in Mr. C. M. Fassett's laboratory, Spokane, Washington, and who had charge of the experimental Hendryx process plant working for several months in that establishment, has been appointed to supervise the operation of the Hendryx electro-cyaniding plant recently installed at the Mountain Lion mill, Republic.

Mr. Horace Mayhew, of Flintshire, Wales, was a visitor to Nelson last month. He is one of the directors of the York and Lancaster Syndicate, which owns the Alice group of mineral claims situate near Creston. This group has been leased by Mr. Mayhew and Captain John Hampson, the latter being in charge of the development work in progress on the property. Mr. Mayhew is also interested in other British Columbia mining properties, being a stockholder in the London & B. C. Goldfields, Ltd., owning the Ymir gold mine, and in the B. C. Standard Mining Company whose Hunter V. group, near Ymir, is considered one of the most promising mining properties in the Nelson Mining Division. He leaves early this month on his return to England, where he is largely interested in coal mining, being a partner with two sons of the late Hon. W. E. Gladstone in opening up coal measures on the Hawarden estates.

Mr. Beaudette, the Dominion Government Engineer who visited the Coast cities last month, expressed the opinion that the country in the vicinity of Dawson would long continue to yield annually a large amount of gold, the difficulty there being not any limitation of auriferous area or the early exhaustion thereof but the scarcity of water. For ordinary placer mining operations only gravel going two dollars a cubic yard or over will pay, but by hydraulic methods ground averaging 25 cents can and is profitably worked. In many cases, however, water could only be obtained from a distance requiring a large expenditure of capital, which is not easily obtainable for this purpose. Mr. Beaudette also stated that the quartz showings in the Yukon were most promising, and the Government is lending some assistance in proving the value of claims already discovered by crushing ore at practically cost and by other ways, but conditions are as yet hardly ripe for the establishment in the Yukon of a quartz mining industry on anything approaching an important scale.