

ported that a million dollars' worth of gold has been put into sight.

The year was more than ordinarily prolific in promising discoveries. In Boston township, J. K. Papassimakes is developing a claim which shows in places a free distribution of fine gold in dark greenish quartz, and in Pacaud, the next township to the south, Miller and Connell have acquired the McDonough claim, one of the best looking finds of the year. This is a quartz vein a foot wide and about 2,000 feet long, showing free gold wherever uncovered. At Kowkash, 300 miles west of Cochrane, on the National Transcontinental Railway, a spectacular find of gold in quartz was made in August by E. King Dodds, but on sinking, the values disappeared. South of Dryden, on the Canadian Pacific, near Lake Wabigoon, a narrow and irregular vein showing abundance of free gold was located by E. G. Rognon. These veins no doubt will all be opened up in the near future. Meantime the year closed with a decidedly optimistic feeling so far as gold mining is concerned.

Silver production in Ontario in 1915 was smaller than in 1914. The decrease amounted to approximately \$2,000,000, the product having a value of about \$10,750,000 as against \$12,795,214 in 1914. In other words for every six dollars won in 1914, the mines last year won five. Part of the decrease is due to the low prices which prevailed for silver from January until November, when a sudden and decided increase took place, amounting to 8 or 9 cents per ounce. This had the effect of stimulating production and development, and the year ends at Cobalt with a much improved outlook as compared with a year ago. The leading mine at Cobalt is still the Nipissing, the Mining Corporation of Canada coming next, and Coniagas, Kerr Lake, Seneca-Superior, Temiskaming, Beaver, McKinley-Darragh-Savage, O'Brien and LaRose following. The finding of new veins continues to reward exploration, both above and below ground. At the Townsite mine a system of high grade veins has yielded much rich ore. Deep drilling is in progress at the Beaver mine in the hope of eventually encountering good ore at the lower contact of the diabase sill and the Keewatin. Most of the silver produced from the mines is now refined in the Province; much of it at the mines themselves and the remainder by the refineries at Deloro and Thorold. The sale of cobalt and nickel oxides has almost ceased since the war began, but the refineries are beginning to produce both metallic cobalt and metallic nickel.

Taken together, the value of the gold and silver obtained in Ontario in 1915 exceeded that obtained in 1914, but while the production of gold is going up, that of silver is going down. The famous mines of Cobalt have passed their zenith, and their yield is decreasing. Production was stimulated by the sudden and decided rise in the price of silver in November. By-products of the Cobalt ores, particularly cobalt oxide and nickel oxide, had a poor year, the continental markets in Europe being cut off by the war. In consequence, stocks of these substances are accumulating at the refineries.

At Cobalt during 1915 a new slimes plant was built by the Cobalt Reduction Co. This plant was designed to handle the slime from the concentrating mills. It is being successfully operated.

The output of nickel in Ontario in 1915 was the greatest in the history of the Province, and further, the rate of production to-day is much higher than in the early part of 1915. The year's output was about

32,000 tons of nickel. Practically all of this came from the Sudbury district, the Alexo mine near Porcupine and the Cobalt ores contributing a small proportion. The Canadian Copper Co. and the Mond Nickel Co. have been pushing production to the utmost limit of their capacity in the effort to supply the demand for war purposes. Most of the former company's output was from the great Creighton mine, the ore of which carries a high percentage of nickel as compared with the average of the mines in the district. The Mond company draw their ore from a number of openings, including the Garson and Levaek, the latter having reached the stage of steady production. The Alexo ore is purchased by the Mond company and smelted at Coniston, and this company has also bought the old Bruce mines for the sake of its siliceous ores which are desirable for smelting mixtures, and which besides carry an appreciable percentage of copper. The final product of the Sudbury plants is the Bessemer matte, containing 75 or 80 per cent. of nickel and copper combined. This is sent to New Jersey by the Copper company and to Wales by the Mond company for final separation of the metals. Values in gold, silver, platinum and palladium are also recovered from these mattes.

The copper production of Ontario increases with the nickel production, the copper occurring with the nickel in the ores of the Sudbury district. The output in 1915 was about 18,750 tons. In addition to the nickel-copper ores there was mined during the year some siliceous copper ore from the old Bruce mines. This is used as a flux at the Coniston smelter. The Mond company purchased the Bruce mines recently.

Although Moose Mountain mine is now closed down, shipments of iron ore during 1915 were somewhat larger than in 1914. Production during the first nine months of 1915 from Helen, Magpie and Moose Mountain mines was valued at \$601,444.

On the other hand, the quantity of pig iron turned out by the blast furnaces of the province fell off materially. Most of the iron ore charged in these furnaces is imported from the United States.

The demand for building materials and clay goods, owing to the stoppage of building operations consequent upon the war, was not good in 1915, and production of these non-metallic substances consequently fell off. Petroleum continues to be pumped in the Lambton field, but in diminishing quantities, the yield in 1915 being not over 7,000,000 gallons. Natural gas, on the other hand, has been obtained in much larger volume during recent years than formerly, and valued at a low figure at the wells, the production in 1915 was worth about \$2,300,000.

Pyrite production was considerably increased during 1915 and the National Graphite Co. put into successful operation its mine and plant in Hastings county. Salt production was about as usual. There was a small production of molybdenite and a concentrating plant has been put in operation by the Orillia Molybdenum Co.

While the record of Ontario's mines in 1915 is a very good one, considering the ill effects of the war, the year's record is hardly indicative of present activity. Production during the latter part of the year was much greater than in the early months and was never so great as it is to-day.

The year 1916 will be a busy one at the mines. Increase in production is being planned and numerous additions to plants will be necessary. Several new properties and some old ones are being opened up.