

The price of silver in New York varied between a minimum of 54 $\frac{3}{4}$ cents per ounce in January and a maximum of 64 $\frac{1}{8}$ cents in October, the average monthly price being 60.835 cents, compared with an average of 53.304 cents in 1911.

Copper.

There is practically no recovery of refined copper in Canada and the production is represented by the copper contents of smelter of smelter products, matte, blister-copper, etc., together with the amount of copper contained in ores exported, estimated as recoverable.

The total production on this basis in 1912 was 77,775,600 pounds, valued at \$12,709,311, as compared with 55,648,011 pounds valued at \$6,886,998 in 1911, an increase in quantity of 22,127,589 pounds and in value of \$5,822,313.

Quebec province is credited with a production of 3,225,523 pounds as against 2,436,190 pounds in 1911, the increase being due to the increased production from the pyritic ores of the Eastern Townships. Ontario's production in 1912 was 22,250,601 pounds, as compared with 17,932,263 pounds in 1911, being mainly derived from the nickel-copper ores of the Sudbury district.

Apart from the copper shipments from Dane, the most interesting occurrence was the payment made for copper in shipments from the Cobalt camp.

British Columbia had a record output of 50,526,816 pounds, having had a year of uninterrupted smelter operation free from strikes and other disturbances.

From the Yukon the Pueblo mine was a heavy shipper.

The New York price of electrolytic copper varied during the year between 13.75 cents per pound in February, to 17.60 in August, the average for the year being 16.341 cents, as against an average monthly price of 12.376 cents in 1911.

The exports of copper in 1912 were: copper, fine in ore, etc., 76,542,643 pounds, valued at \$8,800,276, and copper black or coarse and in pigs, 1,945,921 pounds, valued at \$236,212.

The total imports of copper in 1912 were valued at \$7,052,534.

Lead.

The total production of lead in 1912 was 35,763,476 pounds, valued at \$1,597,554, or an average of 4.467 cents per pound, the average wholesale or producers price of pig lead in Montreal for the year. In 1911 the production was 23,784,969 pounds, valued at \$827,717.

The shipments were practically all from British Columbia mines in 1912, a small shipment being made from Ontario mines, but not paid for. Towards the close of the year the North American smelter at Kingston, Ontario, started operations.

In British Columbia the resumption of active operations at the Blue Bell and the activity of the Consolidated Mining and Smelting Company and a number of the more important purely mining companies have been factors in the increase.

The exports of lead in ore, etc., in 1912 are reported as 299,240 pounds, valued at \$8,193. No pig lead was exported.

The total value of the imports of lead and lead products in 1912 was \$1,806,221, including pig lead, bars, sheets, tea lead, etc., valued at \$1,202,001; manufactures of lead valued at \$200,157; litharge and lead pigments, valued at \$404,063.

The total value of the imports of lead and lead products in 1911 was \$1,049,276, being pig lead, etc., \$706,020; manufactures, \$108,012, and litharge and lead pigments, \$235,244.

The average monthly price of lead in Montreal during 1912 was 4.467 cents per pound. This is the producers price for lead in car lots as per quotations kindly furnished by Messrs. Thos. Robertson & Co.

The average monthly price of lead in New York during the year was 4.471 cents, and in London £18.929 per long ton, equivalent to 3.895 cents per pound.

The amount of bounty paid during the twelve months ending December 31, 1912, on account of lead production, was \$118,425.74, as compared with \$219,557.70 in 1911.

Nickel.

The mining and smelting of nickel-copper ores in the Sudbury District of Ontario, was carried on with greatly increased output during 1912. The same companies were in operation as in previous years, viz.: The Mond Nickel Company and the Canadian Copper Company operating mines and smelters, and the Dominion Nickel Company, developing and proving ore bodies. It is interesting to note that small shipments of nickel ore were also made from the Alexo Mine at Kelso, in the Nipissing district. This ore was smelted at Victoria Mines.

Considerable changes have been made in some of the details of smelting practice, although the general method remains the same, i.e., the ore is roasted, smelted and converted to a Bessemer matte containing from 77 to 82 per cent. of combined metals, copper and nickel, the matte being shipped to the United States and Great Britain for refining. A portion of the matte made by the Canadian Copper Company is used for the direct production of monel metal, an alloy of nickel and copper, without the intermediate refining of either metal.

The total production of matte in 1912 was 41,925 tons, valued by the producers, at the smelters at \$6,303,102, an increase of 9,318 tons, or nearly 20 per cent. over the production of 1911. The metallic contents were copper 22,231,725 pounds, and nickel 44,841,542 pounds. The amount of ore smelted was 725,065 tons, which included 1,720 tons from the Alexo mine mentioned above.

The aggregate results of the operations on the nickel ores during the past four years were as follows in tons of 2,000 pounds:

	1909.	1910.	1911.	1912.
	Tons.	Tons.	Tons.	Tons.
Ore mined	451,892	652,392	612,511	737,584
Ore smelted	462,336	628,947	610,834	725,065
Bessemer matte produced	25,845	35,033	32,607	41,925
Copper content of matte	7,873	9,630	8,966	11,116
Nickel content of matte	13,141	18,636	17,049	22,421
Spot value of matte	\$3,913,017	\$5,380,064	\$4,945,592	\$6,303,102