

LEAD AND ZINC.

Zinc Mining Shows Increase for 1913, While Lead Shows Small Decrease—Stimulated by the High Price of Spelter.

A preliminary statement of the lead and zinc mining industry in 1913 has been compiled by C. E. Siebenthal, of the United States Geological Survey, from the most reliable sources available at this time. It appears probable that the mine production of domestic lead in ore in 1913 was 460,512 tons, making a small gain, about 3147 tons, over the 457,365 tons output in 1912, or less than 1 per cent. When the mine output of lead in 1913 is compared with the smelter output of domestic refined lead in 1913, making allowances for lead in domestic antimonial lead, for lead in pigments produced from ores, and for lead lost in smelting, it is evident that the mine production no more than equalled the smelter production for the year. This was the result of the continuation of smelting operations in the soft-lead smelters, although the Southeast Missouri mines were closed down for some time on account of labor troubles. The loss in production in Southeast Missouri was made up by gains in lead output by Idaho, Utah and Colorado.

Zinc mining was greatly stimulated by the high prices for spelter which prevailed in 1912 and in the early part of 1913, and the operations begun at that time continued through the year in spite of the depression in the spelter market during the later part of the year, with the result that the mine output of recoverable zinc was 414,032 tons, a gain of 35,335 tons, or nearly 10 per cent, over the 378,610 tons produced in 1912. This gain was due chiefly to the large output of the Butte and Superior mine of Montana, though good gains were also made in Idaho, New Mexico, Tennessee and New Jersey. The largest loss in zinc production was shown by the upper Mississippi Valley region, although Colorado and the Joplin region also lost slightly in output.

ALASKA'S COAL DEVELOPMENT

The development of the coal resources of Alaska, according to a statement in a report on the mineral resources of the United States issued by the United States Geological Survey, has been held back on account of the lack of legislation permitting the exploitation of the known extensive and valuable fields. In 1912 the commercial product of coal in Alaska amounted to only 855 tons. In addition 900 tons were mined under the direction of the Bureau of Mines for testing by the United States Navy. The imports of coal into Alaska amount to about 100,000 tons annually, but most of the transportation and manufacturing industries of the Territory now depend on California oil for their fuel.

PLACER MINING

Few mining regions in California have attracted so much general attention and held it for as long a time as the Klamath Mountains of Siskiyou and Trinity counties in the northwestern part of the State. The La Grange mine, which is one of the largest hydraulic placers in the world, is now in the height of its activity.

According to Bulletin 540-A, recently issued by the United States Geological



DR. JOSEPH E. SCHENCK.

Head of the Well-Known Firm of J. E. Schenck & Son Passes Away.

Photo by Gulekand.

See Page 3.

survey, the outlook for future placer mining in this region is encouraging. The success of the La Grange mine consists in the economical treatment on a large scale of relatively low grade gravel. The success of the dredging at Trinity Center and of the placers north of Lewiston gives confidence to those who are attempting larger developments at the mouth of Eastman Gulch and at the bend of Trinity River above Lewiston, and the region may well be regarded as worthy of investigation by capitalists interested in dredging and hydraulic mining.

MINERAL PRODUCTIONS

Michigan is sixth among the States of the Union in the value of its mineral production. It owes its prominence to its great wealth in two metals, copper and iron. In the production of iron ore in 1912, according to the figures compiled by E. W. Parker, of the United States Geological Survey, in cooperation with the Michigan State Survey, it ranked second, and in the production of copper it was third. Among the less important branches of the mining industry it ranks first in the production of salt, bromine, calcium chloride, graphite and sand-lime brick,

second in the production of grindstones and fourth in the production of gypsum. In 1910 the total value of the production considered, the mining of iron ore was the leading industry in Michigan, but in 1911 and 1912 the value of the recoverable metallic content of the copper ores produced in Michigan exceeded the value of the iron ore mined. In 1912 the production of iron ore amounted to 12,797,468 long tons, valued at \$29,008,163, and the copper production to 218,128,408 pounds, valued at \$35,992,837. The total mine production of copper in the United States in 1912 was 1,249,094,891 pounds, of which Michigan contributed 218,128,408 pounds, or 17 per cent.

The total production of copper in Michigan from earliest records has been about 5,200,000,000 pounds, or about 50 per cent of the total output of the United States.

Michigan stands well up among the States in the manufacture of cement, producing 3,494,621 barrels in 1912. The salt production of the State (exclusive of rock salt) amounted to 10,271,715 barrels, valued at \$2,743,389. The value of Michigan's clay products increased about 22 per cent, from \$2,083,932 in 1911 to \$2,545,498 in 1912.

COPPER DECREASES.

Blister and Lake Output Shows Small Decrease for 1913—Exports Increase and Imports Decrease—Stocks of Refined Copper Decrease.

Statistics and estimates received by the United States Geological Survey from all plants known to produce blister copper from domestic ores and from all Lake mines indicate that the copper output of the United States in 1913 will show a considerable decrease from the record production of 1912.

The figures showing smelter production from domestic ores, which have been collected by B. S. Butler, of the Geological Survey, represent the actual production of most of the companies for 11 months and an estimate of the December output. The November figures for a few companies were not available and these companies furnished estimates for the last two months of the year. According to the statistics and estimates received, the output of blister and lake copper was 1,223,700,000 pounds in 1913, against 1,243,228,720 pounds in 1912.

Preliminary statistics showing the output of refined copper are not collected by the Geological Survey. Figures published by the Copper Producers' Association show an output of 1,483,480,406 pounds for the first 11 months of 1913 and indicate that the production of marketable copper by the regular refining plants from all sources, domestic and foreign, will amount to 1,618,000,000 pounds for 1913 if the December output is equal to the monthly average for the first 11 months. This compares with 1,568,104,478 pounds in 1912.

According to the Bureau of Statistics imports of pigs, bars and ingots for the first 10 months amounted to 246,785,819 pounds, and the copper content of ore, matte, and regulus imported amounted to 88,300,732 pounds. If the imports for November and December were equal to the average monthly imports for the first 10 months the amount of copper entering the United States for the year was about 402,000,000 pounds, against 410,240,295 pounds for 1912. Considerable of the copper imported as blister had been previously exported as ore or concentrates.

Estimates based on figures published by the Bureau of Statistics and also by the Copper Producers' Association indicate that the exports of copper for 1913 will show a marked increase over those for 1912 and may equal 865,000,000 pounds.

Stocks of refined copper held in the United States January 1, 1914, are considerably less than on January 1, 1913. Foreign stocks also show a considerable decrease.

FIVE GREATEST

MINERAL STATES

Pennsylvania, Ohio, Illinois and West Virginia are credited with over 40 per cent of the total mineral production of the United States. Pennsylvania outranks all other States, producing nearly 25 per cent of the total. West Virginia comes second, Illinois third and Ohio fourth. California, with no standing as a producer of pig iron, iron ore, or coal, stands fifth in rank among the States, owing to its heavy production of gold and petroleum.

... ..