

of England, and a member of many other learned societies. Mr. Low, in addition to his high attainments as a geologist, is marked by a strong sense of the practical utility of his profession, and he is quite *au fait* with mining interests of the day. His splendid personality, as well as the qualifications already mentioned augurs well for his directorship. The Review extends its congratulations both to Mr. Low upon the important position to which he has attained, and to his Department on the appointment of so able a head.

MINERAL PRODUCTION.

The statistics of the Mineral Production of Canada for 1905, compiled by Mr. E. D. Ingall, with the assistance of Mr. J. McLeish, which forms a part of the Summary Report of the Geological Survey, has just appeared in separate form. Increased production is the dominant feature of this valuable report. The total mineral production for the year amounts to \$68,574,707, against \$60,343,165 for the year previous. This is an increase of about 14 per cent. The increase too applies to all products except petroleum, natural cement, and gold from the Yukon. In the last named case there has been a falling off in the output of placer gold amounting to more than \$2,000,000. This decline is attributable to lack of mining facilities for working at depths and not to exhaustion of the ore deposits.

The following are the percentage ratios of the principal minerals:—

| | |
|----------------------------------|--------|
| Coal..... | 25.77% |
| Gold..... | 21.14% |
| Nickel..... | 11.02% |
| Copper..... | 10.83% |
| Asbestos..... | 2.19% |
| Petroleum..... | 1.24% |
| Brick, Stone and Lime..... | 8.62% |
| Silver..... | 5.26% |
| Lead..... | 3.84% |
| Cement..... | 2.81% |
| Pig Iron from Canadian Ores..... | 1.53% |

All the coal mining districts show an increase, the aggregate of the whole being about \$1,000,000.00, or 6 per cent. Approximately 60 per cent. of the coal mined in Canada comes from Nova Scotia, 20 per cent. from British Columbia, 20 per cent. from Alberta, Saskatchewan and the Yukon Territory. It has the largest output, according to value, of any single mineral mined in Canada, and added to the metals, makes up 80 per cent. of the total production.

The output of silver has increased \$1,558,862, or more than 50 per cent. over the previous year. This is due to the large development of silver mining at Cobalt, and to the splendid results that have been obtained. The extraordinary richness of the ore, and the comparatively small amount of development necessary, as well as the low cost of mining, are important features of this unique mining camp. "Car-loads of ore, reported at from \$60,000.00 to \$100,000.00 in value, have not been unusual."

The newly discovered deposits at Windy Arm, Lake Tagish, on the boundary between British Columbia and the Yukon Territory, give promise of a further increase in the supply of silver during the present year.

The copper production of Canada has increased during the past year by more than four and a half million pounds. This with the increased price of that metal, has given an increase in value of more

than two million dollars. The copper production has increased in each of the provinces in which copper mining is carried on, namely, British Columbia, Ontario and Quebec. The output of the mines of the Boundary District alone is estimated to have increased by one million of dollars during the past year.

The total amount of pig iron manufactured in Canada during 1905 was 527,932 tons, valued at \$6,492,972.00, as compared with 303,454 tons, valued at \$3,582,001.00 in 1904. Of this amount less than one sixth is yet made from Canadian ores. However, 116,779 tons of iron ore was exported from Canada during the year. The Government bounty paid for pig manufactured from Canadian ores in 1905 amounted to \$1,900,206.00.

Aided by bounties to the amount of \$334,224.00 the output of lead increased during 1905 by nearly 50 per cent. or more than a million dollars. Over 90 per cent. of this output has been exported to foreign countries. The lead refinery, established two years ago at Trail, and the Corroding Works recently begun by the Carter White Lead Company at Montreal, will however eventually lead to the manufacturing in Canada of nearly three-fourths of the amount at present produced.

The nickel production of the year amounted to 18,876,315 pounds, valued at \$7,550,526.00, as compared with 10,547,883 pounds, value \$4,219,153.00, in 1904. Some of the ores from the Cobalt district contained nickel varying in amount from 4 per cent. to 7 per cent., but these have not yet been smelted and hence are not included in this output.

Concerning zinc, Mr. Ingall writes: "The zinc ores of British Columbia, which were formerly regarded as merely detrimental constituents of the combined lead and zinc sulphuret ores of the province, have for some time been the subject of great interest on account of the demand which has recently arisen for ores of this metal. Already attention has been turned toward utilizing the zinc blende associated with the argentiferous galena of the various camps in East and West Kootenay. Mill practice has been altered at some of the mines already operating so as to give a satisfactory separate zinc product, and attention is also being turned toward the opening up of various claims where the large proportion of blende present has formerly debarred profitable work. The *Daily News*, of Nelson, B.C., estimates a production for the province of over 13,000 tons with an average content of 42 per cent. of this metal.

The recently erected smelter at Frank in Southern Alberta, owned by the Canadian Metal Company, will insure the utilization of much of the ore in the country. The production of zinc ores in this province is likely to increase very largely in the future should the active demand continue, as their existence in quantity is already known at very many places.

The whole question of supply and utilization of those ores is now under investigation by a commission instituted by the Federal Government.

The asbestos industry shows a substantial advance over the output of previous years. The production is classified as follows:—

| | Tons. | \$ |
|---------------------|--------|-----------|
| Crude..... | 3,768 | 472,859 |
| Mill stock..... | 46,902 | 1,013,500 |
| Total asbestos..... | 50,670 | 1,486,359 |
| Asbestic..... | 17,594 | 16,900 |
| Total products..... | 68,264 | 1,503,259 |

Exports of asbestos according to Customs returns were 47,031 tons, valued at \$1,386,115.