

increasing quantities of ore and concentrates are passing through our port en route for smelting and refining in San Francisco, and whilst other B.C. ores are making from this coast to Everett and Tacoma, that there should be such want of confidence on the part of British capitalists in the Vancouver district as a suitable smelting centre. Ore, lime and other fluxes, coke, water power and cheap ocean transit are all here available. The neighborhood of Vancouver has in several respects great advantages over Seattle, where the early establishment of a smelter seems not unlikely. We say "neighborhood of Vancouver" for the smelter should certainly be outside the city limits, yet within so short a radius as to make the industry tributary to our city and port.

THE UNITED STATES MINERAL OUTPUT OF 1896.

The Engineering and Mining Journal of New York has just issued a most valuable—because carefully compiled—return of the mineral output of the United States for last year. The return is valuable, terse and notable also by reason of the suggestive sidelights which it throws on some of the mining possibilities of our own province.

Taking, first, a glance at the respective total values of the last two years, it is seen that the aggregate worth of the mineral output of the United States in 1896 reached the larger sum of \$706,015,411, a considerable increase on the respective total of 1895, which came to \$682,065,118. It is also noticeable that for the larger proportionate increase of values is shown by the metals, which rose from a worth of \$244,290,167 in 1895 to one of \$255,985,229 last year.

Among the non-metals, also found on British Columbia, it is noticeable that the value of alum ore produced fell from \$3,537,000 in 1895 to \$2,331,000 in 1896, an immense decrease which suggests that the mining of alum, of which large deposits exist in the Harrison lake district of our own province, is not likely to prove profitable. The figures, in fact, bear out a statement recently made to a Vancouver correspondent by Messrs. Peter Spence & Co., Manchester, England, perhaps the largest alum refiners in the world. They aver that, speaking generally, there is little commercial value in natural alum deposits, as the

and cheaply obtained as a by-product of gas works.

Nor is the mining of antimony of much value, as the United States output of 1895 was worth only \$37,905, and fell in 1896 to \$4,750. The anthracite coal output of the States meanwhile rose from \$80,250,625 to \$88,105,837, but that of the bituminous coal fell from \$123,877,958 to \$115,827,813, and that of canal coal from \$191,804 to \$146,488. Coke also fell in value from \$19,018,276 to \$17,267,401. The output of lime, which could not be very closely estimated, was stationary, and is computed as representing a value of about \$30,000,000. Mica was little produced, and in worth amounted to \$38,356 in 1895 and to \$46,116 in 1896, and roofing slate fell last year from a value of \$2,494,213 to one of \$2,260,862.

Among the metals the copper output rose hugely, from 386,453,850 to 467,822,973 pounds, and in value from \$40,616,300 to \$49,729,582. The gold yield advanced from 2,265,612 ounces to 2,837,965 ounces, and in value from \$46,830,200 to \$58,660,637: whilst the output of pig iron fell from \$103,632,543 to \$91,577,601. Lead meanwhile rose from 156,854 tons to 174,792 tons, and in aggregate value from \$10,132,738 to \$10,381,843; whilst platinum advanced from 150 to 200 tons, and from a worth of \$2,250 to \$2,800. This meagre output of platinum recalls the fact that in a twelvemonth, not long distant, our platinum deposits of the Similkameen and Tulomeen produced a modest value of \$1,500, or yet more than half last year's total output of the United States in that metal. But it would appear from recent negative results that little is to be expected from the platinum deposits of the Tulomeen and Similkameen, which have been disappointing recently by producing litigation rather than yielding either much gold or a minimum of platinum. What very little platinum is produced in the States is extracted in the coarse gold bullion refining at San Francisco and wholly derived from the ores of California.

The American supply of quicksilver, meanwhile, fell slightly in amount and value, but 33,180 flasks were produced in California, worth \$1,226,660. This is of interest to us, as it is claimed that our province possesses at Savona the only cinnabar or quicksilver yielding mine in the British Empire, but at this,

It is also noteworthy that the United States yield of zinc diminished slightly in quantity last year, but rose in value, the output of 77,637 tons being worth \$6,074,219. It is, however, stated that far more could be raised were not the demand limited and new uses required for the metal. Hence there is no great encouragement afforded for the development of our British Columbia zinc deposits, which have, moreover, been found up to the present of low grade.

Lastly, it is noticeable that despite the depreciation due to demonetization the United States output of silver rose from a worth of \$30,254,296 to a value of \$37,725,178, a fact proving what, of course, all well-informed men know, that silver-bearing ores as rich as are vast numbers in this province are well worth working, notwithstanding the present widening rule of gold.

THE KICK OF KOOTENAY MINING MEN.

The Kootenay mining men, lately in council assembled, have registered many protests, some of which are well founded, notably those against undue land grants to railroad promoters, against the tax on cordwood and the \$5 tax on the ordinary miner, who does not seek prospector's rights. There are, however, two sides to the question whether mining machinery should or should not be admitted free. Mining machinery of a kind not made at all or not made well and cheaply in Canada should be admitted free, but a strictly moderate duty should for a time be retained on such machinery as Canadian makers can well provide. The Americans get, heaven knows, profit enough from Canada's mines and mining, and there is no reason why their home industrialists should be allowed, by their infernal system of highly capitalised combines, to crush out, as they would do under absolute free trade, Canadian engineering and machine making concerns. The United States fiscal policy is hoggish and must at times be resented accordingly. A little more "give and take, live and let live" by the men of the States would benefit both our own and the neighbor nation.

It is better for Canada to pay temporarily to some extent—with a view to ultimate industrial gain—by means of revenue duties, that are also incidentally protective to a slight extent, than by a system of free imports—not free trade—to play, in the end, into the hands of American monopolist combines. These, more than any other organization in the world, illustrate the adage that a corporation has neither heart nor soul.