

good. All the old houses, and barns, and mills, and fences in the country will also be painted, so that the consumption of lead in Canada in the immediate future may be expected to reach not only a per capita ratio equal to that of the United States, but a higher figure, let us assume, 20,000 tons per annum.

In some appreciative remarks in regard to the lead mining situation in Kootenay, B.C., printed in your February number, you state, and quite rightly, that the crux of the question is that of a market, but you speak somewhat hopelessly of the value of our own home market.

It is a fact that the present ruling prices for lead in the London market are very unfavourable. In July, 1900, lead was worth in London £18 per long ton. In November 1901, it was down to £10 5s. Lately it has advanced to £11 7s. 6d, equal to \$2.45 per 100 pounds.

At this rate the B.C. miner receives \$1.46 per 100 lbs (being the London price, less \$1.00 per 100 lbs. retained for refining and transportation to London) or for ore carrying 50 per cent. lead the miner receives \$1.46 per 100 lbs. for 900 lbs., equal \$13.14 per ton of ore, whereas freight and smelting charges are \$15.00 per ton, leaving a balance of \$1.86 to be paid out of the silver contents of the ore, together with cost of mining, conveyance from mine to railway, and all other charges.

The present price of silver (53 cents per oz.) is almost as low as has ever been known, and the situation is that only mines exceptionally high grade in silver can work.

The production of lead in B.C. in 1900 amounted to 31,000 tons, and the production in 1901 to 28,000 tons, but that it was maintained for the latter year at so high a figure was due entirely to the impetus given by the high prices of the year before.

The great lead producing mines of B.C. are now closed, and must remain so until prices rise, or the very distasteful alternative is resorted to of a lower rate of wages to miners.

The production of lead in 1902 will certainly not amount to 20,000 tons, and may not exceed 10,000 tons, so that had we the opportunity of supplying in full the Canadian market we would have for this year no exportable surplus.

Lead mined and smelted in Canada and refined abroad is now readmitted into Canada by payment of duty only upon the cost of refining.

There being as yet no refinery in operation in Canada, our smelters avail themselves of this privilege to the extent of supplying fully the Canadian demand for lead in the form of pig.

Of the total consumption of lead products in Canada, however, one half consists of "corroded" lead, the material which, when ground and mixed with oil, becomes lead paint.

By a maladroit arrangement of the Canadian tariff it occurs that the foreigner who is impeded by a 15 per cent. rate of duty (or if an Englishman by a rate of 10 per cent.) from shipping his pig lead into Canada, can by subjecting it to a further and important process of manufacture, get it admitted as raw white lead, at a 5 per cent. rate (or if an Englishman at 3½ per cent).

Against the competition of concerns in the United States and the Old Country, already engaged in the corrosion of lead on a large scale, with facilities already provided, and ample capital already invested, it is almost useless to expect the establishment of the business of lead corrosion in Canada, with a tariff fence so low as this.

I do not wish, for a moment, to use your paper as a medium through which to obtain circulation for a contribution to the current discussion upon the trade policy of the Government.

This particular item of the tariff was fixed as at present at a time when there was no lead production in sight in Canada, and now that conditions have changed, it necessarily awaits a convenient opportunity for readjustment.

In the meantime it amounts to the offer of a premium for the manufacture abroad of an important article, the raw material for which is a drug in our own market.

I am aware that a proposition to increase this rate of duty will meet the objection that an increased price to consumers of paint will be involved, but there is no evidence that this would follow.

The duty upon mixed paint is now 25 per cent., and this I fancy fixes the price of paint mixed at home.

While our miners in B.C. receive for lead \$1.46 per 100 lbs., their neighbours in the Coeur DeAlenes camp get from the Lead Trust of the United States \$3.50 per 100 lbs., and yet the price of white lead in oil is practically the same (about \$5.50 per 100 lbs) on both sides of the line.

I do not claim that while the present excessively low price of lead continues, that there is any very happy solution for the difficulties of the lead mining camps. But the opportunity to supply in full our own market would save the industry from extinction.

Even with last years' production of 28,000 tons, the sale at home of one-half, at London price without the deduction of freight to London, will greatly facilitate the disposition of the other half. And this could, I think, be accomplished if lead were given in the tariff the same treatment accorded similar lines of goods.

Bounty upon Refining.—In the Session of 1901, the sum of \$100,000.00 per annum was appropriated by Parliament to be paid out during five years beginning July 1st, 1902, at a rate of \$5.00 per ton of refined lead for the first year, with a decrease of \$1.00 for each year.

Under the stimulus of this offer, a refinery in connection with the works of the Canadian Smelting Co., at Trail, is in an advanced stage of construction, and the Marysville Smelting Co. have also announced their intention of establishing one in connection with a smelter which they have under way at the Sullivan line in East Kootenay. At the time that this bounty was offered, the price of lead was about £14, and a production of about 30,000 tons per annum was being maintained.

The price of silver was at the same time 65c per oz., and an advance to 75c. was freely predicted. When a few months later lead fell to £10, and silver to 53 cents, the production fell off 50 per cent. or more, and is now proceeding, as I have said, at a rate of from 10,000 to 20,000 tons.

At the beginning of 1902 the B.C. smelters and railways met the necessities of their customers by a cut of \$4.00 per ton of ore in freight and treatment charges.

It is possible that the present charge (\$15 per ton upon average ore) would admit of further reduction, if it were possible for the smelters to market the lead bullion without loss.

The deduction of \$1.00 per 100 lbs. from London price does not, however, come near meeting the actual cost of refining a ton of bullion, paying freight from B.C. to London, and meeting the inevitable charges for commission, interest, etc., involved in the transaction.

The total of these charges is nearer \$1.75 per 100 lbs. than \$1.00, so that the whole of the earnings of the smelter for the treatment of ore would be lost in the cost of marketing, if the whole of the lead production was actually shipped to London.

That the business is continued at all under present conditions is due to the fact that a portion of the output is marketed in Canada, and another small portion in China and Japan, at prices slightly better than London and with a great saving in freight.

A readjustment of the terms upon which the bounty of last year was offered, maintaining the limit of expenditure as now at \$100,000 per annum, but allowing it to be paid at a higher rate per ton in case the total production falls below the amount at which the whole appropriation could be earned at present rates, would afford sensible relief to a badly harassed industry, and would be but justice to those who in good faith are investing their money in lead refineries.

It is promised by the smelting companies that in order to promote the establishment of works in Canada for the corrosion of lead, a price will be made upon lead pig, such as will enable such an industry to meet outside competition, even under the unfair existing tariff conditions.

One thing is certain, that to the ore shipper the irreducible minimum of price has been reached, and that the benefit of every concession that can be obtained by the smelter or the refiner must be transferred to the producer under penalty of a total cessation of ore supply.

G. O. BUCHANAN.

Kaslo, B.C., 15th April, 1902.

SIR—I beg to call your attention to the present condition of the lead smelting industry in British Columbia.

Two years ago the Trail smelter settled with the lead mines on the basis of New York quotations for lead, less the duty of 1½c. per lb. on lead contents. In making fresh contracts, however, the manager of this smelter represented that it would be more satisfactory to the mine owners to settle on the basis of London quotations for lead, which would yield them quite as much. Accordingly new contracts were made on the basis of these quotations, less \$16 to \$18 per ton freight on the lead to London. At the beginning of the present year, however, the rate of freight was raised to \$20 per ton, besides an increase in smelting charge, and shortly after lead in London dropped about 40 per cent below New York quotations. The